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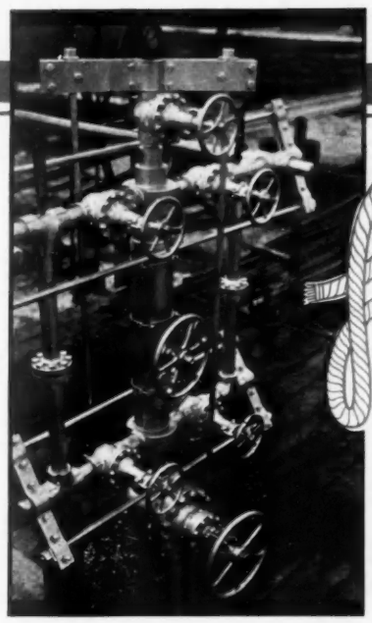
The OIL WEEKLY

OIL and GAS ENGINEERING

FOR OIL AND GAS PRODUCTION AND PIPE LINE DIVISIONS

THE WEEK'S NEWS INTERPRETED

JULY 11, 1932
ume 66 Number 4



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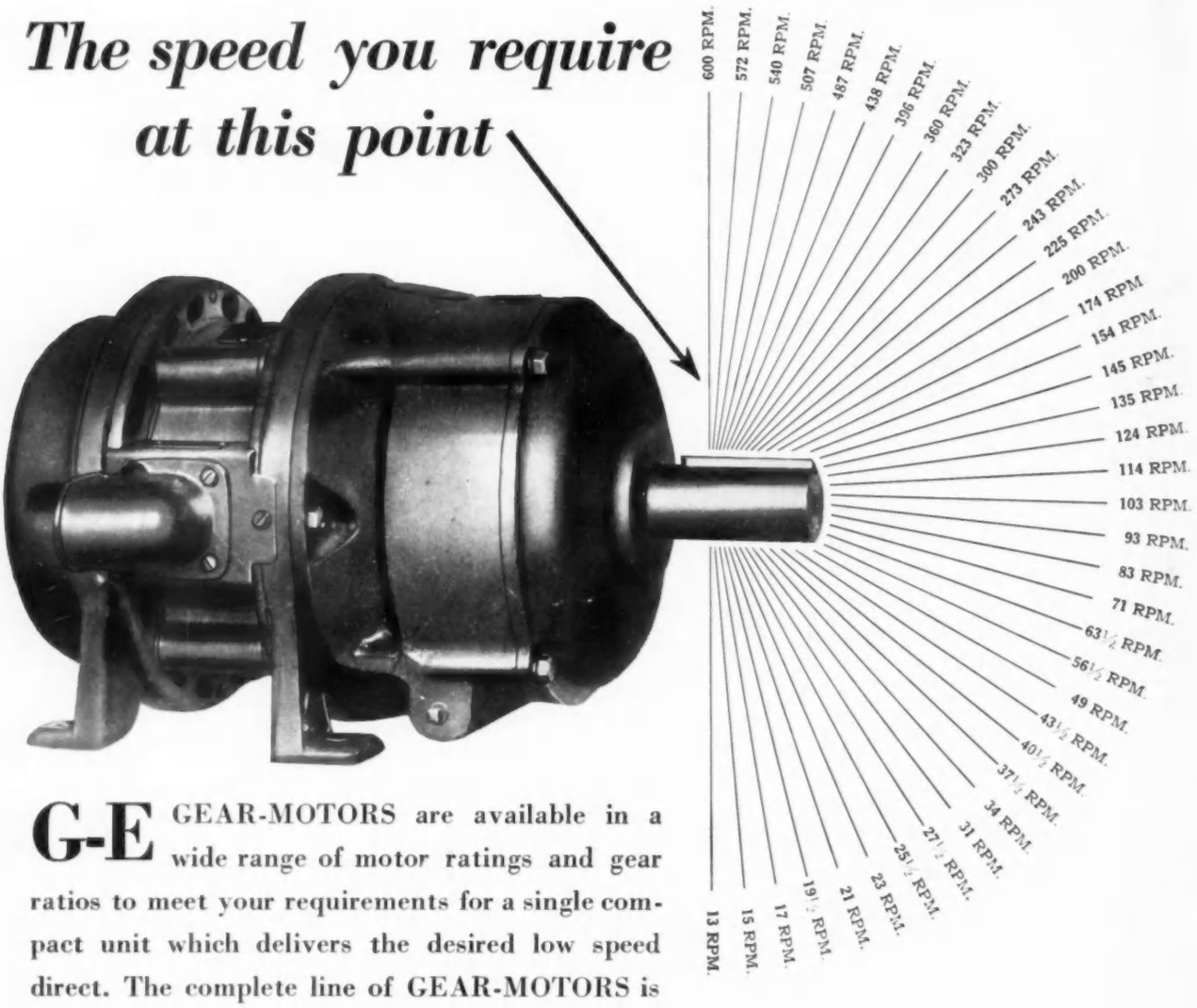

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201-230

GENERAL ELECTRIC

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GASO PUMP DESIGN SAVES POWER—LESSENS WEAR

BEARINGS

— in GASO Pumps conform to todays best engineering practice. For example, in Fig. 1508 GASO Power Pump the pinion and crank shafts are journaled in Timken Tapered Roller Bearings. Crosshead ends of connecting rods have bronze bushing. Crank ends have removable steel shell, babbitt lined . . . In all GASO Pumps skillful design is combined with precision workmanship and the most suitable materials to insure efficient operation and long life . . . Gaso Pump & Burner Mfg. Company, Tulsa, Oklahoma.

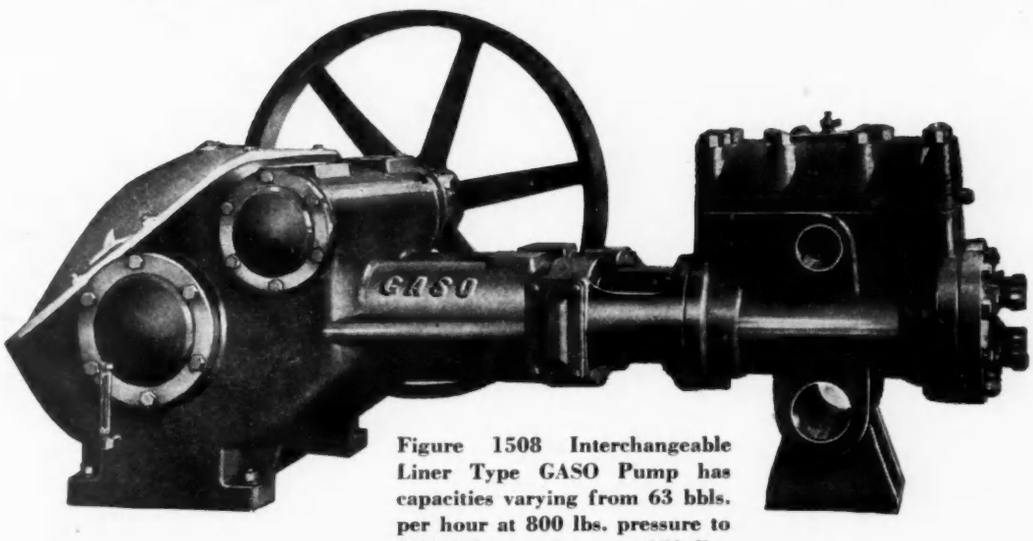

Figure 1508 Interchangeable Liner Type GASO Pump has capacities varying from 63 bbls. per hour at 800 lbs. pressure to 250 bbls. per hour at 250 lbs. pressure. Arranged for belt or V-rope drive; direct connected to engine through flexible coupling; or for motor drive through silent chain or reduction gears.

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for every oil industry need

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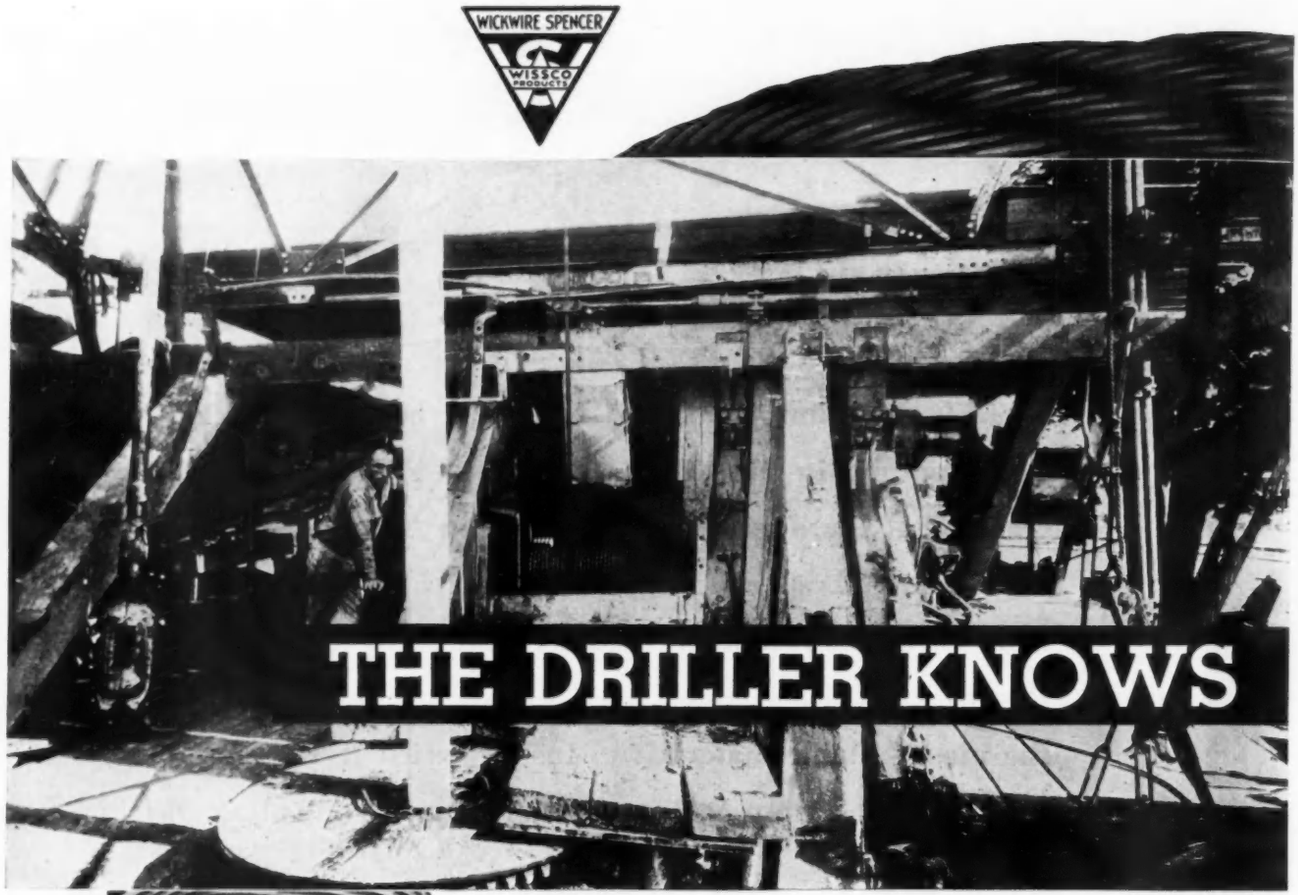
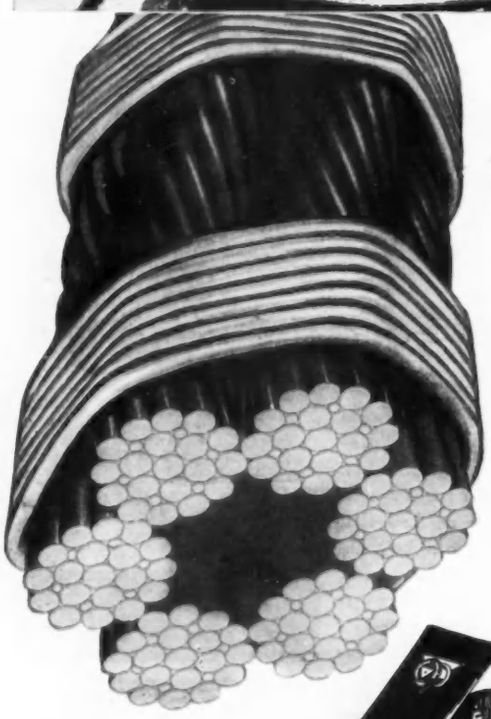


THE DRILLER KNOWS



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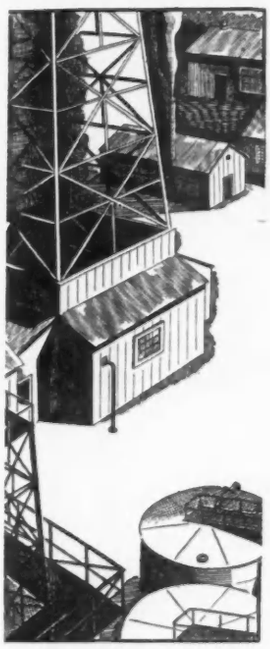

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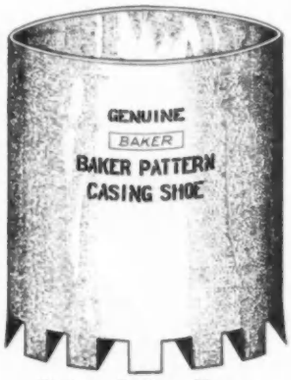

Baker Casing Shoe
1907—

1907—THE BAKER CASING SHOE
1912—The Baker Cement Retainer
1918—The Baker Sure Shot Cement Plug
1922—Baker Cast Iron Floating Equipment
1924—The Baker Cement Basket
1924—The Baker Drill Pipe Float
1926—The Baker Cable Tool Core Barrel
1927—Baker Cement Equipment
1930—THE BAKER ROTARY HYDRAULIC EXPANSION WALL SCRAPER

You recognize, no doubt, a certain pattern of thought and invention in the above chronology of Baker equipment, but do you recognize the similarity between the earliest and the last tools?

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The Baker Rotary Hydraulic Expansion Wall Scraper is just as advanced in design and construction as the Baker Casing Shoe was in its day.

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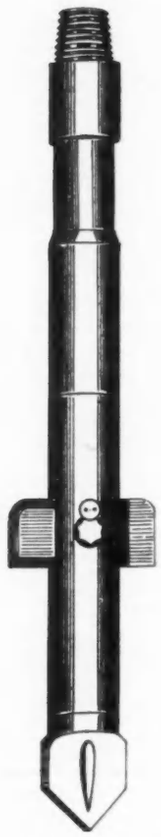
—1930



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JUL 12 1932

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S. W. ROBINSON
Editor

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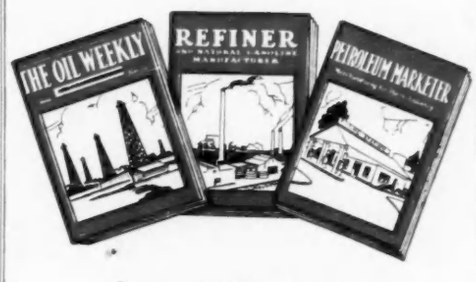

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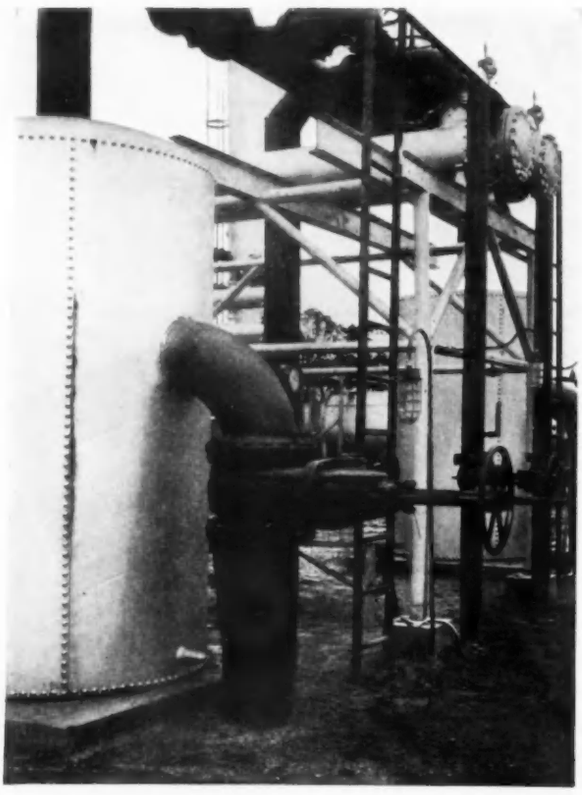

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We Say

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VOLUME 66, No. 4 JULY 11, 1932

THE OIL WEEKLY

FOR OIL AND GAS PRODUCTION AND
PIPE LINE DIVISIONS

ENGINEERING ▪ NEWS ▪ STATISTICS

The Changing Panorama

Tariff Stops Imports

Report of imports of oil into the United States for the week ending July 2, first week after the tariff becomes effective, is more comforting to Wirt Franklin than to Treasury Secretary Mills. It becomes apparent this early that the tariff is more potent as a bar to imports than as a producer of revenue. Total of all imports was down almost 50 per cent, and gasoline was stopped 100 per cent. Readjustment of the United States position as regards world movements of oil, or the effect of moving gasoline which has been coming into this country into channels formerly supplied by exports, will await government reports which will be several weeks in materializing. Movement of gasoline from California to Atlantic Coast points was not stimulated this early, but can be expected. Page 20.

Big—and Straight

A drill collar 10 inches in diameter and 90 feet long adds considerably to the weight of the drill pipe and requires a big hole, but it can be calculated that the hole will be straight. Such a collar was used to 6800 feet in a well at Kettleman Hills, and from there it was shortened to 58 feet. Even with the long collar it was deemed advisable to feed slowly and watch the weight on the bit carefully when drilling through formations which are almost vertical. This is accomplished with a hydraulic rotary table and bit pressure gauge. The well is a claimant for several records. Page 24.

The "sour water" brother of the wiggle stick specialist of a few years back was only an amateur and was crying in the wilderness. In his day what chemists the oil industry used were in the refineries (where most of them still are), and except for an occasional testing of boiler water, the producer had no use for chemistry. More recently many uses for chemical science have developed in analysis of waters both above and below ground, and even extending to geology. Page 30.

Not only is it possible (at least sometimes) to recirculate water through the sand from which it is produced, but water in the ground can be chemically treated with beneficial results. An operator in Eastern Kentucky found that out during a drouth that depleted the cooling water supply. To get the cooling required, the

Looking Up

View of the Aerial Equipment With Which Over a Hundred Tons of Pipe and Equipment is Handled In and Out of a Big Hole at Kettleman Hills. (Page 24)

water is run down a creek bed to an inlet well some distance from the well from which the supply is pumped. This keeps up the supply of water in the sand, and chemicals added at the intake improves the helpfulness of the drinking water. Page 28.

Army Well Geology

Fort Morgan, across the bay from Mobile, Alabama, has been abandoned by the army since the world war, as was a water well drilled there during those times because it showed tendencies to gas and oil. At this late date recognition of the reported gas and rumored oil is to be checked by a wildcat test. Incidentally the operator is one who certain proration officials and a lot of operators in Texas devoutly hope can go off somewhere and find an oil field all its own. Page 56.

Gas Pipe Capacity

To a lot of people the question of how much gas will go through a pipe would class with how high is a tree. On the other hand, this is important information to know for the people who need to know it. Given sizes and other conditions, loss in pressure in a given distance can be calculated, and more easily with a chart reproduced on page 27.

The Oil Man's Calendar

AUGUST

10 *Tennessee Oil Men's Association, Nashville, Tennessee.*
22-26 *American Chemical Society, Denver, Colorado.*
23-26 *Pacific Coast Gas Association, Spokane, Washington.*

SEPTEMBER

10-17 *Society of Automative Engineers, Cleveland, Ohio.*
14-16 *National Petroleum Association, Atlantic City, New Jersey.*
Last Week *Ohio Petroleum Marketers Association, Columbus, Ohio.*

OCTOBER

1 *American Institute of Mining and Metallurgical Engineers, Petroleum Division, Dallas, Texas.*
3- 7 *National Safety Council, Washington, D. C.*
4- 6 *Society of Automotive Engineers, Transportation meeting, Toronto, Canada.*
10-14 *American Gas Association, Atlantic City, N. J.*
11-12 *Kentucky Petroleum Marketers Association, Louisville, Kentucky.*

NOVEMBER

10 *California Natural Gasoline Association, Los Angeles, California.*
15-17 *American Petroleum Institute, Houston, Texas.*

DECEMBER

Rocky Mountain Oil and Gas Association, Great Falls, Montana.
5- 9 *American Society of Mechanical Engineers, New York.*

That "prosperity has always returned and will again," was the cryptic statement of John D. Rockefeller, Sr., on the occasion of his ninety-third birthday July 9. Mr. Rockefeller gave out the statement at his estate near Tarrytown, New York, the day before his anniversary. He said he expects to live to be 100 years old.

"There are days when many are discouraged," his statement read. "In the 93 years of my life depressions have come and gone. Prosperity has always returned and it will again.

"And now on this, my birthday, I desire to reaffirm my belief in the fundamental principles upon which this country was founded—liberty, unselfish devotion to the common good, and belief in God."

California's Stocks

California, as all Native Sons will agree, is different. Success of cutting back production has been rewarded with better prices as promised, but lowering the production is not the end of the state's oil problem. The stock situation there is problem a plenty, what with the market so greatly restricted and being further influenced by the Pacific Coast refiners "going modern" to satisfy the demand for anti-knock gasoline. Page 11.

Not in almost two years were as many oil wells completed in the United States as was recorded in June. However, continuation of rigid production control influenced the production of crude oil below the previous month. East Texas continues to dominate all statistics on drilling and production without causing fluctuation in the yield. Page 15.

The next controversy of moment, it appears, will be over proration of wells in Texas. East Texas operators complain that the rest of the state is not being controlled so rigidly as are those in the big pool. Counter claims are to the effect that some of the pools that were producing under proration when East Texas was discovered have potentials which, as compared with the allowance for East Texas, would justify them in being given an increase rather than the reduction which will be asked of them. The usual round of expert testimony is expected to be introduced at the hearing to further befuddle the worried commissioners who have their political affairs to look after at this time. Page 16.

All seems quiet on the Oklahoma City front. Col. Murray's army either found the weather too warm or their suspicions were otherwise allayed to account for no activity in the proposed digging for hidden pipe lines of proration evaders. Interest has been transferred to watching trucks hauling "waste" oil. A hearing is expected to clarify the situation for the operators who, in the meantime are letting matters slide.

California Stock *Situation Altered by* Changes in Refining

BRAD MILLS
Staff Representative

CALIFORNIA stocks should be reduced to around 100,000,000 barrels to insure the proper balance between supply and demand, to eliminate the burden of excessive carrying charges, and to remove the possibility of heavy liquidation in a market which could not absorb large excesses.

Daily production of crude oil, which must be considered in connection with stocks on hand, has taken a very favorable downward turn, and total stocks should be reduced considerably during the next year. The average California oil company realizes the necessity for a reduction of stocks, and has lowered production to allow for steady withdrawals of all products.

The sharp decrease in demand for California petroleum products has placed a new interpretation on both stocks and crude production. Claims by a few that the demand is such that a reduction in stocks is secondary to the day-to-day production of crude oil break a basic economic law which will prevail in the face of a weak but stubborn opposition.

In making an analysis of total stocks held by all California companies, several factors should be considered. Changing conditions make the present setup radically different from what it would be under 1928-29 conditions. The rapid change in refinery methods and the treacherous shift of market demands make the 171,000,000 barrels held in storage in California more dangerous than would be the case under more prosperous conditions. Some of the factors are:

1. Nature of stocks.
2. Strength of companies holding bulk of stocks.
3. Likelihood of liquidating stocks.
4. Cracking and straight run possibilities.
5. Reduction of stocks over a period of two years.
6. Storage facilities.
7. Development of new channels to offset loss in exports.

To get a clearer view of California stocks, a study of the totals of June 1 is necessary. The totals of July 1 were only slightly changed, although they are not yet available. The latest figures released by the Pacific Coast office of the American Petroleum Institute follow:

	June 1, 1932	June 1 1931
Heavy crude and all grades of fuel, gas and diesel oils	98,859,851	102,327,766
Refinable crude .	42,621,571	44,464,035
Finished gasoline, engine distillate, natural gasoline	17,912,003	16,689,288
Crude gasoline and naphtha distillates	4,776,867	2,886,471
Other stocks....	7,578,669	9,399,971
Total 171,748,961		175,767,531

While the totals are adequate to determine the trend in stocks, they fail to give an analysis of several phases of the setup. To show nearly 100,000,000 barrels of heavy crude, etc., on hand, without at least a rough breakdown, does not give the picture needed to force conclusions as to the importance of the component parts making such a total. The table ordinarily given for publication falls far short in its classifications, and between the lines may be read a series of economic stories of major importance.

Grade Important

The total of all stocks is often less important than the total of one particular grade. This has been particularly true in California, where either gasoline, light or heavy crude stocks have raced out of line with other products. This top-heavy condition has weakened the market on several occasions.

In attacking the few figures ordinarily available which are supposed to show the character of stocks, a true analysis of products on hand can be made only after the leading companies are contacted and after these companies have told their hopes and fears for the future. The ordinary California company is "touchy" when stocks are mentioned, but it has long remained a mystery why any company should attempt to keep the nature of its stocks from even its own stockholders.

The character of stocks is very important. It is obvious that a large percentage of products which could never injure the market would be almost equivalent to a much smaller total. A careful study, however, reveals California stocks as very desirable, and reports that most of the heavy products will not be marketed seem without foundation. It is true that a few bottoms will not be used, but on the whole both the light and heavy stocks are marketable.

Of the total heavy stocks, it is safe to say that fully 80 per cent could be cracked under extreme conditions. It is definitely known that no such percentage of the nearly 100,000,000 barrels will be cracked; in fact, very little of it will be refined under present plans. This does show definitely that the heavy oil stocks are not just so much volume, and more than 90 per cent of the total should ultimately find its way to market in some form.

The increase in cracking operations makes the heavy stocks more desirable and potentially more important. The moment production of light oil falls below requirements, it will be possible to fall back on these heavy stocks on short notice.

The belief in some quarters that the heavy oil carried for years has little value, is erroneous. Holding of these stocks has reduced and even eliminated the straight run possibilities, but the cracking potentialities have not been lowered. This oil was never intended for straight run stock, and further increases in cracking operations will make this classification still more valuable.

Proof has been established that certain types of heavy grades of crude make the best anti-knock gasoline. This may lead to blending the lightest grades with some of the crudes formerly regarded as almost useless. Some of the lighter grades make poor gasoline, even when cracked, but blending may help to raise the value of the refined products.

Much of the 20 gravity California crude is better than the higher gravities produced in the Mid-Continent. The heavy stocks total includes fuel, gas and Diesel oils, but it is impossible to determine the percentage of each grade. Most of the total is composed of heavy crude that is marketable and that could be cracked if necessary. Weathering and mild evaporation have only slightly lowered its value for future use.

Only a small amount of heavy stocks are now being cracked. Most of the cracking stock comes immediately from the light, or refinable column, by virtue

of the residuum from straight run operations. This cracking stock would be thrown into the heavy column under the old scheme, but it is more efficient and less expensive to crack the hot residuum than to charge with the cold crude in storage. This operation forces the marketing of most of the heavy stocks as fuel oil. Much of the fuel oil which has found its way into the heavy stocks column has not been cracked, however, since an exact balance between the residuum from light oil and cracking operations can not be maintained.

"Refinable" Crude

Refinable crude stocks stand at a little more than 42,000,000 barrels. This is at least 15,000,000 barrels more than necessary under present demands. The increase was caused largely by the overproduction of 1929. The total has been lowered slightly, but production has been enough to supply most of the current demands while both local and offshore shipments have fallen short of expectations.

An analysis of refinable crude stocks is not as difficult as the breaking down of heavy stocks. All crude listed as refinable may be refined, but much of the total is admittedly of questionable value to meet certain requirements. Practically all current and immediate future requirements will be met by these stocks.

The disposition of light stocks, the amount of gasoline they will make, and the likelihood of cracking the residuum are important factors in the handling of this classification. Cracking operations have been increasing by leaps and bounds, and most of the major refiners have discarded the old claim that satisfactory gasoline can be made from California crude through straight run methods.

The amount of gasoline that can be made from total light stocks is of extreme importance. The increase in the percentage of gasoline obtained from each barrel of oil reflects the higher yield through cracking of the residuum thrown over from straight run operations. A study of this increased yield shows plainly that full gasoline requirements may be met with a smaller amount of crude than would have been necessary under straight run operations of a few years ago.

Various California refiners have estimated the yields of various products to be obtained from refinable stocks during the next year. This average estimate takes into consideration the combination of straight run and cracking operations. For each barrel of oil to be refined, the following products should be obtained.

	Per cent
Straight run and cracked gasoline	35.4
Fuel	55.6
Other products and losses	9.0

The average straight run yield will be about 25 per cent gasoline, but cracking of the residuum and other products will bring a much higher yield per barrel. As cracking operations increase, each barrel of light oil in storage becomes a greater factor, and only a greater demand will offset the change in the whole economic setup. Straight run methods will continue to absorb the bulk of the refinable crude, while the cracking stock will come from the residuum.

The runs to stills total about 475,000 barrels daily in California. This is largely straight run in the beginning, the cracking stocks coming from the heavier fractions derived from the original operations. Around 65 per cent of the total gasoline output comes from straight run operations, with about 22 per cent coming from cracking operations. The remainder is obtained from natural gasoline plant operations.

Refinery Stocks

Thus it is seen that the 42,621,571 barrels of light oil in storage in California should yield above 15,000,000 barrels of gasoline, around 23,700,000 barrels of fuel oil and 3,835,000 barrels of miscellaneous stocks. The fuel oil will be chiefly marketed as it is produced. Otherwise it will be carried over into the heavy oil column, in both cracked and uncracked proportions.

Gasoline stocks of around 18,000,000 barrels are about 8,000,000 barrels higher than necessary. Reduction of these stocks will depend largely upon light oil production, future demands and refinery runs to move current output. The constant addition of natural gasoline is a factor which must not be ignored. A 10,000,000-barrel stock would provide a satisfactory surplus and would lessen the possibility of a release of distress motor fuel.

California's daily gasoline output has been around 200,000 barrels daily, of which about 130,000 barrels are obtained from straight run operations, 44,000 barrels from cracking operations, and 26,000 barrels from natural gasoline plant operations. The cracked gasoline is derived chiefly from fuel oil residuum, gas and Diesel oil, and crude gasoline stocks.

The crude gasoline and naphtha stocks of nearly 5,000,000 barrels will account for at least one half as much finished gasoline, and is a factor in total gasoline stocks. Much of this classification is in the process of manufacture and is almost equivalent to refined gasoline.

The strength and temperament of companies controling the bulk of California oil operations must be considered in any analysis of the present setup. Fortunately a few companies control more than 90 per cent of the total of all products. Possibility of a liquidating movement by a company holding a large percentage of stocks would make the present total very dangerous, but such a development is extremely doubtful.

Standard Oil Company, Union Oil Company and Shell Oil Company hold around 110,000,000 barrels of the state total, while seven companies hold around 161,000,000 barrels of the 171,000,000 barrels held by all companies. Thus it is seen that very little oil is in weak hands. Independent operators have never made an attempt to build extensive storage.

The possibility of liquidating stocks is closely related to the strength and feeling of the companies holding them. An actual survey among the leading companies shows that none has any intention of forcing a liquidation in a market which will not absorb additional products. Overproduction, however, could change the status of at least two companies, and it is believed that outright dumping might follow a complete breakdown of curtailment of crude production.

The increase in cracking operations, and assurance that each barrel of light oil in storage will make more gasoline than the average of a few years ago do make the light oil stocks particularly potent. As the average gasoline recovery per barrel increases, light stocks become more dangerous, and a smaller amount of crude production is required. The trend is sharply toward cracking of the heavier fractions after straight running the crude, and this practice will lower the demand for many of the lighter grades by a wide margin.

Effect of Cracking

The race to develop anti-knock fuels with a high octane rating has affected stocks more than the average individual realizes. In cracking heavy fractions and crudes to get the required grades of gasoline, a barrel of oil automatically goes much farther than it has ever gone before. It is true that this practice reduces the amount of residuum, but since the heavier fractions are not needed, the use of these leftovers does not reduce the net totals appreciably.

Reduction of stocks to the proper level within two years will not be ac-

complished unless a better demand for California products is developed and crude production is reduced, or at least held to present levels. It may require even five years to reduce stocks to the best accepted economic level. Forcing of a reduction in stocks through shutting in crude production to a sharply lower output than the present is not expected.

Storage facilities in California will handle around 200,000,000 barrels of all products. The highest total ever carried was around 190,000,000 barrels, this total having been reached late in 1929 and early in 1930. Operators frown on the possibility of increasing stocks, and will not permit higher totals under present conditions. Much of the storage is not suited for handling light products.

Development of new markets to force withdrawals from stocks is easy to consider, but much more difficult to realize. Competition from other districts has been reflected in lower offshore shipments. An improvement in general world conditions would restore some of the losses, but the demand for the immediate future is admittedly limited.

The demand for motor fuel produced in California has declined sharply during the past three and one half years. The daily demand during 1929 was about 242,000 barrels, but during 1931 it had declined to about 197,000 barrels. The estimated demand during 1932 has been placed at less than 180,000 barrels daily. This is about 26 per cent less than the 1929 demand.

Pacific foreign exports decreased from 25,000 barrels daily in 1929 to around 18,000 barrels during 1932, while Atlantic foreign shipments dropped from 32,000 barrels during 1929 and 34,000 barrels during 1930 to around 8000 barrels during 1932. Intercoastal shipments declined more than 50 per cent during the past four years, dropping from 64,000 barrels daily during 1929 to around 28,000 barrels during 1932.

Crude requirements have dropped from just under 700,000 barrels daily during 1929 to less than 475,000 barrels during 1932. This sharp decrease has prevented a reduction of stocks built up during 1928-29.

The following table is believed to represent a safe total for stocks of all products in California:

	Barrels
Heavy crude and all grades of fuel, gas and Diesel oils	50,000,000
Refinable crude	25,000,000
Finished gasoline, engine distillate and natural gasoline	10,000,000
Crude gasoline and naphtha distillates	2,000,000
Miscellaneous stocks	5,000,000
Total	92,000,000

A lower domestic consumption and further losses in offshore shipments may place a new interpretation on stocks now ready for market. This would make a still lower crude production necessary and might postpone the expected reduction in stocks. Due to extraordinary conditions, demands have declined ahead of the most pessimistic estimates of even two years ago.

California's 171,000,000 barrels now in storage are in strong hands, but it would be a very wise policy to reduce this total as soon as possible.

SOME OF CALIFORNIA'S "BELOW GROUND STOCKS"

An aerial view of about two-thirds of the North Dome at Kettleman Hills, looking southeast to include the Middle Dome in the distance. Standard Oil Company's main field camp is shown in the left foreground.

These Times . . . What Employers Expect

SIR HENRI DETERDING, K. B. E.
General Managing Director, Royal Dutch Oil Company

"I WOULD rather have a loyal, intelligent and hard-working organization right now than to have an unlimited supply of money in the bank." (Quoted from a letter from the publisher of THE OIL WEEKLY.)

The "business head" who said this is a "sound thinking" man.

It is an illustration of the difference between "clever" and "intelligent."

Intelligence can be developed into being "clever" and "smart," but University degrees are only a sign of intelligence. But that intelligence is also one of the reasons of the present crisis.

It is intelligence which made some countries "hoard" gold, but cleverness would have induced them to get it employed to create business or in other words consumption.

The hoarding was an "intelligent political" weapon but not the idea of a "clever" man.

A loyal hard-working organization has as its basis—as its driving power—clever employes who have been trained by long practical experience how to get "out" of difficulties; the 'intelligent" politicians "created" these difficulties by having had more training at universities than in practical life.

Give me a good loyal staff, well led, and I shall do some business with good credit and small means, whilst the gold hoarder merely sits on his money, as he does not know how to employ it profitably because he lacks the cleverness how to employ it with reasonable risks.

The clever staff knows how to take risks; the merely intelligent thinks it clever not to take any.

It is so often lost sight of that a good loyal staff has been created by scores of years of "training," by losses through having to replace employees who were found less efficient than you thought, or those who were too intelligent to be willing to be taught practical business methods; the "good-will" which such a staff represents cannot be bought as the Soviet think by hiring temporary highly trained foreign experts—in short a loyal, clever and hard-working organization cannot be bought otherwise than by years of experience and represents more "real" capital than an unlimited supply of money, because it can be better and more profitably employed in times such as these.

A so-called "intelligent" writer on economics wanted to prove to me the other day that as long as everybody used silver coins containing only half the silver which it is supposed to contain, everything would be O.K., but he could not realize that this was tantamount to creating more business by cutting half of a yardstick and calling half a yard a yard and thus fooling oneself of selling twice as much cloth; still he ought to have realized that gold and silver *are* and *should* only *be* yardsticks fixing the relative value of goods and not "values" in themselves to be hoarded or mutilated.

This is the third of a series of interviews from the industry's leaders in response to a request from The OIL WEEKLY asking for views on what is expected by oil executives of employees at this time and what in their opinions will help to pull the industry out of its present dilema.—*Editor.*

Production Drops *Further in June Despite* Intensive Drilling

JACK LOGAN
Staff Representative

NOMINATING the field of drilling activity in the United States during the month by furnishing practically one-half of all completions and over 65 per cent of all new oil-producing wells which were brought in, the unprecedented, far-flung East Texas field in June set up a record of field development surpassing any previously established there and influencing the national record to such extent that one must go back into the statistics for almost two years to find as many new oil wells completed within a month.

Warm, dry weather made conditions ideal for drilling operations in the five-county field of East Texas, and operators large and small seemed bent upon taking full advantage of the sunshine and dry roads, while they were probably spurred on also in their strenuous drilling campaign by both the desire to cash in as much as possible on the gradually declining flowing capacity of the field and the conviction that it may be well to have relatively large numbers of wells on production as insurance against any weakening or revision of the currently effective proration program.

So consistently intense was the East Texas drilling program in June that new oil wells were brought in at an average rate exceeding 20 a day. In completing 670 tests to furnish 660 oil producing wells and a dry gas well, the operators in the field enlarged considerably upon their activity during the previous month, and even surpassed the previous high record of the field established in October, 1931, when there were 650 completions. By the end of June the number of producing oil wells in the prolific area had exceeded 6500, including almost 2800 which had been placed on production during the first half of 1932.

Most New Oil Wells for 22 Months

With the above discussed field in the midst of an intense drilling program, the United States as a whole during June shattered a record of 22-months standing in completion of new oil wells by furnishing 1355 completions, among which were 1007 oil producers. Not since July, 1930, had there been so many new oil wells, the number during that month amounting to 1167. Since that time monthly completions of productive oil wells have ranged down to 347 in March, 1931, and up to a peak of 849 in October, 1931, which stood until reaching 877 in May, 1932.

Total completions of productive and unproductive tests in the United States during June, amounted to 1355, an increase of 180 over the previous month.

Analysis of the statistics for June as compared with May shows that while East Texas accounted for the 180-well increase to the extent of furnishing 83 more completions in June than in May, practically every other major division in the country also showed increased activity, California being practically the only important exception. That state supplied only 12 completions in June as compared with 22 in May.

Increases in other districts included the following: Oklahoma had 85 completions in June against 71 in May; Kansas 48 as compared with 23; Texas outside the East Texas field and the Gulf Coast showed an increase of 30; the Gulf Coast had 51 in June, an increase of four; North Louisiana more than doubled, furnishing 29 completions in June against 14 in May; Arkansas supplied nine as against none; the Rocky Mountain states 13 against eight; and the Eastern States, including Michigan, 196 against 191.

With the number of new productive wells in June amounting to 1007 as compared with only 877 in May, there was an important increase in reserves built up during the month, initial production of all wells completed aggregating 5,925,294 barrels as compared with 4,690,077 barrels in May.

Production Declines

While drilling activity was on the up-grade, there was not any weakening in production curtailment efforts. In fact, so successful was the industry, and particularly in California, in strict maintenance of control, that the daily average of crude oil production was lowered by 44,548 barrels during June as compared with the previous month. In June the nation produced 65,022,600 barrels of oil, or an average of 2,167,753 barrels daily, as compared with 68,781,350 barrels in May, a daily average of 2,212,301 barrels.

The important role which California took in bringing about the above mentioned 44,548-barrel decline in the nation's daily production average is seen in the fact that the decrease for that state alone was 32,653 barrels. During June California produced only 14,209,300 barrels of crude oil, an average of 473,643 barrels daily, whereas the output in May had been 15,695,200 barrels, or 506,296 barrels daily. By the closing week of June California production had been reduced to 460,400 barrels daily.

Summary of United States Drilling and Production, June, 1932

State—	Month of June, 1932						Cumulative—January to June, inclusive						
	Completions	Oil Wells	Gas Wells	Failures	Initial Production Oil	Initial Production Gas*	Total Oil Production†	Completions	Oil Wells	Gas Wells	Failures	Initial Production Oil	Initial Production Gas*	Total Oil Production†
Oklahoma	85	58	4	33	48,058	483½	12,968,000	434	233	62	150	376,665	916½	77,871,200
Kansas	48	26	7	15	12,718	105	2,904,950	225	141	17	67	79,716	260	17,855,040
California	12	7	1	4	8,480	20	14,209,300	119	89	4	26	57,960	53	91,267,400
Texas, outside Gulf Coast	912	769	13	130	5,805,775	281½	22,432,800	3926	3281	76	569	23,929,939	1245	135,451,842
Gulf Coast	51	28	..	23	20,282	15	4,419,150	283	146	4	133	105,044	47	26,009,502
North Louisiana	29	10	3	16	2,550	11	888,650	114	36	16	62	14,820	133¼	5,323,825
Arkansas	9	..	..	9	.....	..	1,021,600	20	2	..	18	335	..	6,224,550
Rocky Mountain States	13	6	2	5	20,852	9¼	2,438,950	62	37	8	17	95,636	42	15,290,810
Eastern States	196	103	37	56	6,579	142¾	3,739,200	1296	577	388	329	46,769	1160	22,136,650
Total	1355	1007	67	291	5,925,294	1068	65,022,600	6478	4542	575	1371	24,706,882	3857¼	397,430,819

*Millions of cubic feet.
†Preliminary, subject to revision.

Texas Prorated Fields *Oppose Readjustments of* Allowance

H. H. KING
Staff Representative

Fort Worth, Texas.—Resistance is to be offered by some operators to any attempt on the part of the Texas Railroad Commission to lower the allowable production of Van, Yates and a number of unprorated areas in Southwest Texas and Gulf Coast areas when a hearing on the subject is held at Austin July 11. The meeting was authorized on the strength of a series of complaints eminating from a group of East Texas operators, who are insisting that they are being forced to shoulder an unequal production restriction in order that the total output of the state may be kept in balance with current market demand.

Drastic slashes in the allowable production of the Yates and Van fields, which are enjoying an average production of 162.5 and 153.37 barrels daily per well, respectively, or the highest of any systematically prorated area in Texas, are being demanded by the East Texas group. The Southwest Texas and Coastal areas, where proration handicaps in the past have been rare and lenient, are also targets for the offensive drive being conducted by the complaintants from East Texas to endeavor to make crude sufficiently scarce within the state that nominations for East Texas crude purchases may increase in proportion to new wells added. They are in hopes that this proposed readjustment will forestall the lowering of the well allowable in East Texas below its present quota of 50 barrels daily.

Engineers and statisticians were engaged up to the close of last week in assembling defensive data to resist production slashes in the fields known to be under consideration. A number of major and independent companies with production in numerous fields are remaining silent on the issue in keeping with their policies, while others are prepared to come out into the open for a battle to protect their interests, with a federal court restraining order contemplated against the commission's ruling should same involve severe production cut.

Both Van and Yates fields occupy exceptionally attractive positions from a well allowance standpoint, and have been particularly designated by the complaining group for heavy reductions. The latter are inclined to be a little lenient in their demands from the Van field because of same being an East Texas field. It is quite probable that the leading producing unit in each of these fields will head the opposition against taking production cuts. Both fields have been orderly developed, with care taken against overdrilling of leases whenever possible, and each has been systematically prorated since the drilling in of the discovery well. Van field has never exceeded 50,000 barrels daily, while the Yates field's maximum has been kept within 130,000 barrels daily, or exactly twice as much as its present daily quota.

The systematically prorated fields in Texas offer striking comparisons in average well allowances, as indicated by the accompanying table. The West Central Texas district, where shallow and deep wells occur, is prorated to an average well allowance of 3.59 barrels daily, but actually the burden of proration is felt by comparatively few wells because of marginal allowances. North Texas, where a small percentage of the total of 15,003 wells qualify as deep pumpers, is allowed an average of 3.76 barrels daily per well. Wells capable of yielding more than their marginal allowance are permitted to produce seven per cent of their potential.

Panhandle

The Texas Panhandle, with 1808 flowing and pumping producers, is permitted an average allowable of 29.31 barrels daily per well. This district has a potential of 111,259 barrels daily, but operators in close touch with the situation vouch for the report that only a few leases are capable of yielding more than their allowable, which is limited to 53,000 barrels daily for the district. Gray County's 765 producers are given combined potential of 75,008 barrels, and with an allowable of 32,740 barrels can average 42.79 barrels daily per well. The July 1 proration figures on the Panhandle account for 871 marginal wells, or nearly 50 per cent of the total. Hutchinson County has 502 marginal, or proration exempt wells out of a total of 740 producers.

West Texas

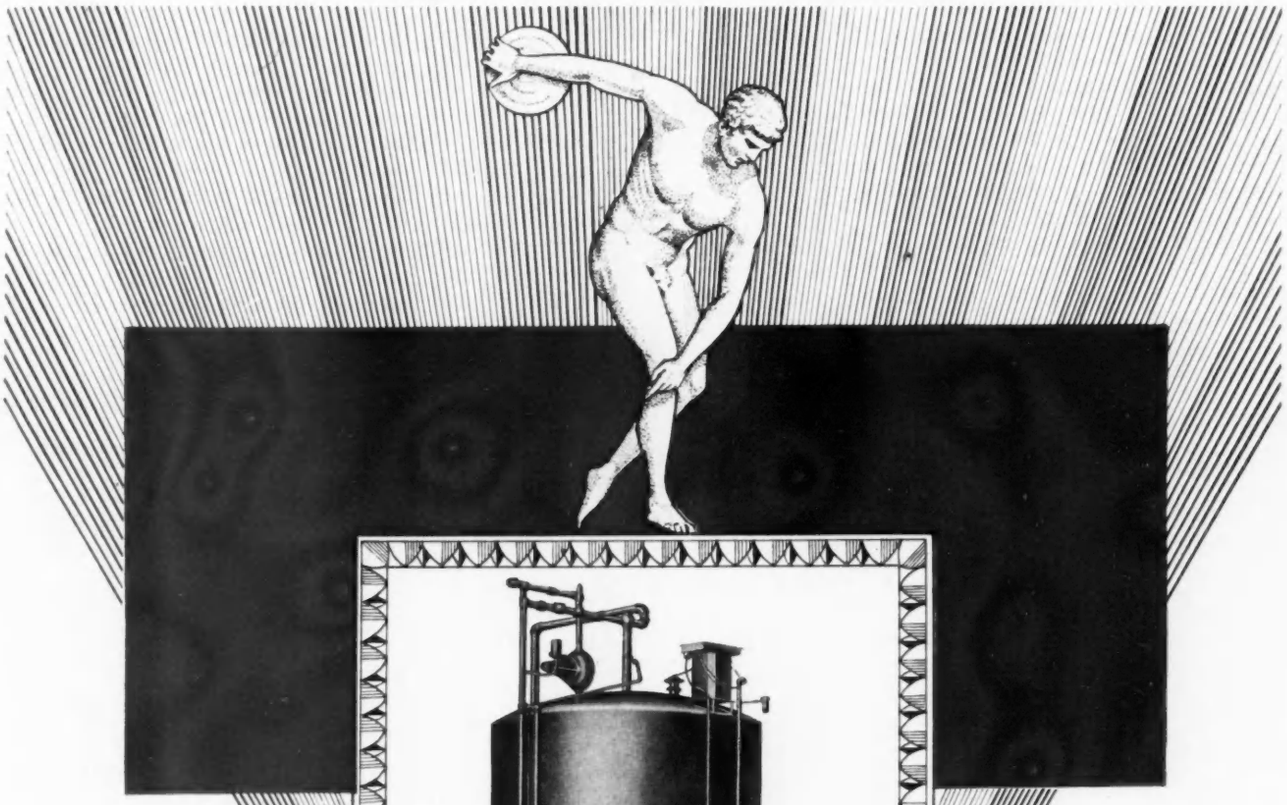
The prorated areas in West Texas, representing 2076 flowing and pumping

Proration Data on Texas-New Mexico Fields as of July 1, 1932

	No. Wells	Official Daily Pot'l Production	Maximum Daily Prod. Allowance	Daily Average Yield Per Well
West Texas—				
Yates	400	4,635,994	65,000	162.50
Winkler County	485	90,574	35,000	72.16
Howard-Glasscock Dist.—				
3000-foot wells	89	12,470	3,387	38.06
2500-foot wells	48	7,705	1,862	38.79
2200-foot wells	86	48,822	7,994	92.95
1800-1300-foot wells	293	6,900	3,257	11.12
Total	516	75,897	16,500	31.98
Crane-Upton	598	55,408	16,700	27.93
Ector County	77	25,385	4,073	52.94
Total	2,076	4,883,258	137,273	66.12
Texas Panhandle—				
Gray County	765	75,008	32,740	42.79
Hutchinson County	740	21,426	13,442	18.16
Carson County	241	12,301	5,544	23.000
Moore County	21	1,976	836	39.81
Wheeler County	41	548	438	10.68
Total	1,808	111,259	53,000	29.31
Central East Texas—				
East Texas field	6,558	.....	.....*	50.00
Van	326	.....	50,000**	153.37
Southwest Texas—				
Darst Creek	268	137,715	18,000	67.16
Salt Flat	263	10,335	10,000	38.02
Miscellaneous—				
North Texas District	15,003	73,900	56,450	3.76
West Central Texas Dist.	8,341	44,021	30,000	3.59
Jones-Fisher Counties	121	9,381	2,000	16.53
New Mexico—				
Hobbs	157	1,002,434	29,500	187.90
Eunice	8	.....	.....	50.00

*Equal quota per well used since 9-5-31, with approximate 325,000 bbls. daily maximum.
**Well allowable determined by oil sand thickness since 10-16-31, with approximately 1,169,600 acre feet in field of 4350 productive acres.

Recognition as the world's finest invariably is based upon genuine merit . . . the acknowledgement of superior performance.



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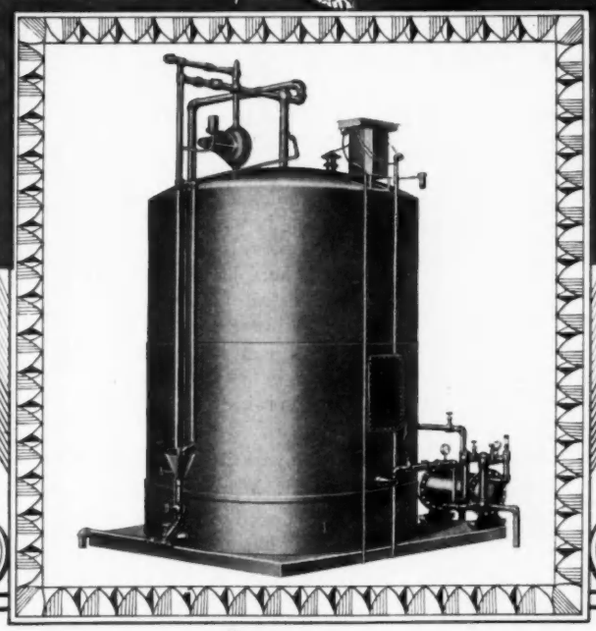
LOS ANGELES



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wells with a combined potential rating of 4,883,258 barrels, have an allowable of 137,273 barrels, or an average of 66.12 barrels per well daily. These potential figures have been "frozen" for months, or years in some instances, and are an exaggeration of the district's possible output. The demand for this West Texas crude remains steady in the face of fluctuating demand in East Texas and other high priced oil areas, as the former is only 65 cents per barrel regardless of the grade, and crude marketing agencies can sell West Texas crudes under such a price differential when no takers are available for the 98-cent product.

Darst Creek in Southwest Texas is the first and only important oil area in the lower section of the state to go under rigid proration rules, and is now allowed an average output of 67.16 barrels per well daily. The neighboring Salt Flat field felt the pinches of proration only after the flush had been extracted, and with a 10,000-barrel limit is allowed an average of 38.02 barrels per well daily.

Legal Body Suggested To Fight Tax Matters

New York.—Creation of an Associated Petroleum Industries Committee, whose duties would consist of seeking gasoline tax reductions as well as opposing other harmful legislation, has been suggested to W. R. Boyd, Jr., executive secretary of the American Petroleum Institute, in a resolution addressed to its board of directors. He proposes a committee of nine members to be elected annually by the board of directors with the president and the executive secretary as ex-officio members.

Through organizations set up in each state this committee would strive to prevent further increases in taxes on petroleum products, work for repeal of existing harmful laws or the reduction of existing rates.

Although this organization would function under the Institute it would be financed separately and work as a unit for better of tax and legislative matters. It would seek to coordinate all the efforts now being made toward this end. It would have state chairmen, state secretaries and publicity directors as needed.

Mr. Boyd estimates that the petroleum industry will in 1933 spend $1,500,000 in its unconnected efforts to avoid higher taxes and adverse legislation. Through the organization he proposes this could be done more effectively at half the cost. Activities of the state code committes, now costing $200,000 a year, could be placed in the hands of this committee.

Morrison Shows Difference Between Yates and East Texas *Proration*

Dallas, Texas.—The position of the Yates pool in relation to proration of Texas oil output has been set forth by R. H. Morrison, manager of the Southern District of The California Company. His communication comes as the result of publicity that came out of recent hearings before the Texas Railroad Commission on the allowable for East Texas.

R. H. MORRISON

Mr. Morrison says that competent engineers have estimated Yates recovery at from 500,000,000 barrels to 700,000,000 barrels. Taking the lowest of these as a basis and 1,500,000,000 as the ultimate recovery of East Texas, he contends that on this basis Yates could set up claim for daily output of one third that of East Texas, or 108,000 barrels daily. Yates, however, is now restricted to 65,000 barrels daily. He adds also that each field has been sufficiently developed to allow fairly uniform drainage and therefore that the amount of oil which can be produced with physical waste bears direct relationship to the recoverable reserves of the field.

The method of proration get this comparison from Mr. Morrison. East Texas now has 6,400 wells and is prorated on a per well basis. Producers in the Yates field, however, have elected to drill but 400 wells and the field is prorated on an acreage potential basis with 100-acre units.

Concerning proration in general for Texas, he makes this observation:

"I think all Texas operators can well learn an object lesson from recent happenings in California. In California it is generally felt there is no conservation law applicable to oil. All operators there, large and small, have finally realized that it is better to have dollars than barrels and the small operators have with splendid cooperation from the principal purchasers put over a voluntary curtailment program which has decreased their barrels but increased their dollars. It would be a fine thing if all Texas operators, large and small, and our Railroad Commissioners who are handicapped by an inadequate law, could sponsor a similar program in Texas. I feel sure that the Yates operators, although now discriminated against, would go along with a program for a uniform reduction throughout the state deemed necessary to insure price stability or further enhancement in price."

He concludes with the statement that his reasons are not intended as propaganda for a larger outlet at Yates.

Three Concerns Still Out On Hobbs Unit Proposal

Fort Worth, Texas.—The support of three major owners of producing leases in the Hobbs field, New Mexico, remains to be obtained before efforts to unitize the developed and undrilled acreage can materialize. The operators' unitization committee met here July 6 in a new attempt to bring the minority group into line on the movement, and passed a resolution carrying the majority's approval of a consolidation of all properties to be further developed and operated under a single common ownership organization.

Of the trio of concerns opposed to unitization as proposed under several plans, one cast a negative vote because of not receiving adequate allowances for undrilled acreage within the proven oil area. The other two have properties situated at high points on the structure, and probably immune from water encroachment for a long period. They are not in accord with the percentage that would be allotted owners of edge leases now sustaining considerable water intrusion, with a corresponding loss in production. Unitization of the entire field has been tentatively approved by all operators, but contingent upon a plan being evolved that will meet the approval of all.

The unit plan committee, which is headed by L. E. Barrows, district manager for The Texas Company, Fort Worth, working in conjunction with a committee of engineers, will endeavor to re-draft their unit plan to make a compromise with the protesting group.

MARKETS ~ STATISTICS

Oklahoma City Production Rises to Influence U. S. Total. California Control Continues. Oklahoma-Kansas Drawing on Stocks. Tariff Stops Gasoline.

Oklahoma City Influences Slight Production Rise

DUE largely to a 50-per cent jump in output of the Oklahoma City field average daily crude oil production in the United States during the week ending July 8, was 45,025 barrels higher than for the previous week, the increase having been to 2,145,815 barrels from 2,100,790 barrels.

Of increase, Oklahoma City was responsible for 33,130 barrels, the average output there being 99,330 barrels daily for the week closing July 8, as compared with 66,200 barrels the preceding week. A 4500-barrel increase in the Seminole area was more than offset, however, by other Oklahoma fields, so that the state as a whole outside of Oklahoma City showed little change.

The only other fluctuation of importance as compared with the previous week was in California, where an increase of 10,000 barrels in the daily average occurred, the output having been 465,000 barrels daily for the period ending July 8.

Several fields in California during the week began to show excesses in production above the allowables, despite the fact that it will be necessary to hold output down in order to maintain the recently established higher price schedule.

Long Beach, Huntington Beach, and Santa Fe Springs were slightly over their allowables, and efforts were being made to reduce production to the designated quotas.

In Texas all sections of the state are well under control, including the East Texas field, where the aim of the Texas Railroad Commission to continue holding the total within 325,000 barrels daily is being practically realized. Reflecting the readjustment of well allowables from 51 barrels to 50 barrels daily effective July 1, the production for the past week represented a decline of about 3000 barrels from that of the previous week. Outside of the East Texas field producing areas of the state showed no important changes in output except the Gulf Coast area, which somewhat more than offset the decline in East Texas to run the state total about 1000 barrels higher for the week as compared with the previous week.

In Kansas, Louisiana, Arkansas, and Rocky Mountain States there were no noteworthy fluctuations in production, but the Eastern States in yielding a daily average of 125,700 barrels were responsible for an increase of about 3000 barrels.

Gasoline Imports Vanish First Week of Tariff

EFFECTIVENESS of the import duty on petroleum which became effective June 21 becomes apparent in the American Petroleum Institute report of imports into United States ports for the week ending July 2. No reports are available as of that date as to the effect of exports from the United States, which obviously will be influenced by the diversion of supplies which have been coming into the United States.

Imports of all oils for the week ending July 2 totaled 1,217,000 barrels, as against 2,305,000 barrels for the week previous. On daily average, for the week ending July 2, 173,857 barrels; June 25, 329,286 barrels, and for four weeks ending July 2 the average was 298,679 barrels. All of the imports were at Atlantic ports, distributed by class as follows:

	Week Ended July 2	Week Ended June 25
Crude	964,000	1,640,000
Gasoline	.....	268,000
Fuel Oil	253,000	397,000
Total	1,217,000	2,305,000

It will be noted from the above figures that gasoline imports were entirely stopped for the week.

For the same period on movement of gasoline from California to Atlantic ports the daily average for the week ending July 2 was 28,286 barrels against a four weeks' average of 26,357 barrels; for the week ending June 25 the average was 45,000 barrels, and the four-week average ending that day was 28,286 barrels.

THE OIL WEEKLY

(Estimated Daily Average Production in Barrels) Week Ending July 9, 1932

District	For Week Ending July 9	July 2
TEXAS—		
Texas Panhandle	53,025	53,150
North and West Central Texas	73,950	73,800
West Texas	176,575	176,350
East Central Texas	56,360	56,600
East Texas Field	328,900	331,800
South Texas	55,600	56,350
Total Texas outside of Gulf Coast	744,410	748,050
Texas Gulf Coast	117,550	112,850
Total Texas	861,960	860,900
OKLAHOMA—		
Oklahoma City	99,330	66,200
Seminole	137,000	132,500
Other Oklahoma	187,455	193,750
Total Oklahoma	423,785	392,450
KANSAS—		
Ritz-Decker	10,400	11,000
Voshell	5,380	6,150
Other Kansas	79,770	79,650
Total Kansas	95,750	96,800
LOUISIANA—		
North Louisiana	28,575	28,475
Louisiana Gulf Coast	31,200	31,100
Total Louisiana	59,775	59,575
Arkansas	33,660	33,675
CALIFORNIA—		
Long Beach	68,800	67,500
Santa Fe Springs	59,000	58,000
Midway-Sunset	50,000	49,000
Kettleman Hills	60,000	60,500
Other California	227,200	220,000
Total California	465,000	455,000
MOUNTAIN STATES—		
Wyoming	35,200	35,010
Colorado	2,870	2,960
Montana	7,200	7,200
New Mexico	34,915	34,920
Total Rocky Mountain States	80,185	80,090
Eastern States*	125,700	122,300
Total United States	2,145,815	2,100,790

*Includes Michigan.

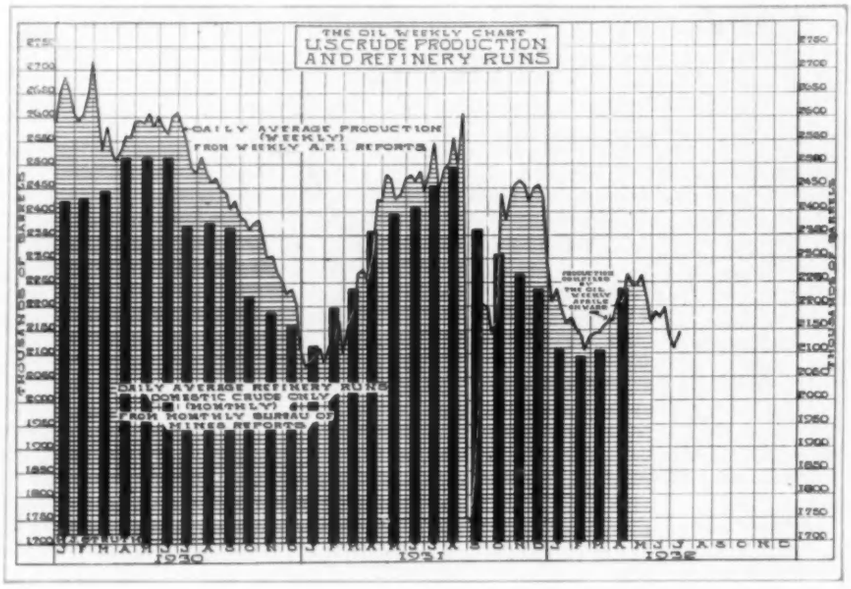
Gasoline Stocks Increase Despite Lowered Still Runs

CRUDE runs to stills continued to decline for the week ending July 2, when the average throughput for the United States was 2,265,700 barrels daily. This was 46,300 barrels daily below the figure for the week ending June 25.

Motor fuel stocks, however, showed a slight increase with 62,141,000 barrels of gasoline at refineries, in bulk terminals, in transit and in other storage. The major part of the gain of 204,000 barrels was in bulk terminals, as stocks at refineries and in transit both were down.

California Production Remains Below Allowable

ABILITY of various operators in all California fields to hold production down to the allowable has been remarkable, and the state output continues below


THE OIL WEEKLY CHART
U.S. CRUDE PRODUCTION AND REFINERY RUNS
DAILY AVERAGE PRODUCTION (WEEKLY) FROM WEEKLY A.P.I. REPORTS
DAILY AVERAGE REFINERY RUNS DOMESTIC CRUDE ONLY (MONTHLY) FROM MONTHLY BUREAU OF MINES REPORTS
THOUSANDS OF BARRELS PER DAY
1930
1931
1932

the allotment established by the umpire. The fact that several fields are sharply below their allotments accounts for the smaller average than could be maintained, should all fields produce their base allowables.

Higher crude prices have stimulated interest in all branches of the industry, but Standard Oil Company of California served notice several weeks ago that it would not continue to pay the higher schedule in the face of excesses in fields which exist for 10 days or more. This simply means that production must be held to the allowable, or the old price schedule will be restored.

A drilling clause in a few fields which calls for additional drilling when crude prices reach a certain base figure is expected to increase development in a few fields. This drilling provision does not apply generally, but theoretically it will hold in any field where more development is needed under favorable conditions.

Producers of heavy oil were offended because the new crude schedule failed to raise oil of 20 gravity or heavier. Many meetings have been held and some trouble is expected because of the unchanged heavy crude prices. All oil up to 20 gravity brings a flat price in many of the leading fields. It happens that the heavy oil producer has been observing curtailment more faithfully than the light oil producer, so it is natural that the former should feel hurt at failure to get more for his oil. The basis for the raise was gasoline content of the crude, rather than the lubricating or fuel qualities.

Consumption of all products in California has held up well, but exports have dwindled sharply from the high level of two and three years ago. Loss of much of the Atlantic seaboard, Orient and Australian business has been reflected in lower tanker shipments from California. The Pacific Northwest has done better than many of the foreign sections. Shipments to Japan have held up better than those of some of the other Eastern districts. Atlantic foreign shipments have been affected by general conditions in Europe and competition from South America.

Summarized Review of Field Results

State—	Completions	Oil Wells	Gas Wells	Failures	Initial Prod.
Arkansas	0	0	0	0	0
California	10	7	0	3	2,075
Illinois	0	0	0	0	0
Indiana	0	0	0	0	0
Kansas	13	7	3	3	4,320
Kentucky	6	6	0	0	300
Louisiana	10	2	1	7	1,047
Michigan	2	2	0	0	77
Mississippi	0	0	0	0	0
New Mexico	0	0	0	0	0
New York	0	0	0	0	0
Ohio	18	5	8	5	63
Oklahoma	23	18	1	4	8,409
Pennsylvania	1	0	0	1	0
Texas	267	212	3	52	1,401,050
W. Virginia	5	0	5	0	0
*Miscel.	1	0	0	1	0
Totals	356	259	21	76	1,417,341

*One dry hole completed in Alabama.

Comparison of Permits Granted for New Wells

State	For week ending July 8	Total this month	Total this year	Total this date last year	1931 year total
Arkansas	0	0	9	23	34
California	3	3	168	227	342
Louisiana	5	5	252	185	309
Kansas	13	13	320	261	475
Oklahoma	17	17	576	524	842
Texas	223	223	4677	3043	6961
Totals	261	261	6002	4263	8963

Mid-Continent Markets Are In Fair Good Shape

RAINS which drenched the whole Mid-Continent area during a portion of the July 4 holiday season interfered with travel to some extent and the pick-up in demand for motor fuels did not materialize as was expected. With only a slightly increased demand and a condition which followed the buying spree of the first three weeks in June, Mid-Continent marketers were not looking for an appreciable pick-up for at least a week or perhaps two.

Early in the week some talk was being made concerning a possible increase in the price of crude oil between now and August 1, and apparently those interested in the Mid-Continent situation have accepted it as a good idea and the belief now seems to be somewhat general. This belief probably was bolstered by the fact that California operators were successful in securing an increase through their curtailment efforts.

Fields of Oklahoma and Kansas have been held below allowable production since the oil states advisory committee's first national allocation, and action of the Texas Railroad Commission in setting an allowable of 325,000 barrels per day for East Texas has served to raise the spirits of Mid-Continent oil men to such an extent that optimism is beginning to be evident despite failure of the market picture to take on any sudden rosy hues.

Careful study of the market situation reveals a slow but steady improvement. Mid-Continent refiners have curtailed runs to stills probably by an average of more than 50,000 barrels daily since June 15. For a time reduction in runs amounted to more than 60,000 barrels daily and the average cut for June probably is not far from 50,000 barrels daily. Due to close control by the major refiners, the middle and upper bracket motor fuels are holding steady, with no indication that prices are being shaded.

The only trouble which is being experienced in holding the price structure intact is in the low octane gasoline which is the principal product of the smaller refiners. Prevailing prices on this grade to the trade seemed to be about 4¼ to 4⅝ cents at the end of the week, with some tendency on the part of smaller refiners to shade the price to a low of 4¼ cents. However, this low-priced material was not being snapped up and some difficulty was being experienced in disposing of it.

During the week ending June 28, net crude movement from storage in Kansas and Oklahoma amounted to a daily aver-

Crude Runs to Stills, Motor Fuel Stocks, Gas and Fuel Oil Stocks and Cracked Gasoline Production, as compiled by A. P. I. for Week Ended July 2, 1932

(Figures in barrels of 42 gallons)

DISTRICT	Daily Refining Capacity of Plants			Crude Runs to Stills		MOTOR FUEL STOCKS					Gas and Fuel Oil Stocks	Daily Charging Capacity of Cracking Units			Cracked Production Daily Average
	Potential Rate	Reporting Total	Reporting %	Daily Average	% Operated	(a) At Refineries	(b) Bulk Terminals	(b) In Transit	(c) Other M.F. Stocks	Total Motor Fuel		Potential Rate	Reporting Total	Reporting %	
East Coast	633,700	633,700	100.0	494,900	78.1	6,063,000	10,928,000	1,778,000	445,000	19,214,000	7,283,000	261,300	236,300	94.1	102,700
Appalachian	149,600	137,400	91.8	89,400	65.1	1,509,000	480,000	10,000	340,000	2,339,000	1,128,000	56,300	54,100	96.1	22,600
Ind., Ill., Ky.	436,300	431,500	98.9	299,400	69.4	5,432,000	2,431,000	38,000	275,000	8,176,000	4,240,000	330,400	315,400	95.5	87,900
Okla., Kans., Mo.	485,700	435,200	89.6	201,900	46.4	3,246,000	969,000	.....	1,030,000	5,245,000	3,439,000	237,800	219,500	92.3	47,600
Inland Texas	305,700	233,900	76.5	92,000	39.3	1,335,000	28,000	.....	405,000	1,768,000	2,746,000	98,400	88,800	90.2	24,700
Texas Gulf	532,500	531,500	99.8	429,300	80.8	4,874,000	369,000	.....	380,000	5,623,000	7,469,000	352,400	347,400	98.6	88,000
Louisiana Gulf	147,500	147,500	100.0	88,400	59.9	1,389,000	293,000	.....	30,000	1,712,000	4,425,000	77,000	77,000	100.0	21,100
North La.,—Ark.	85,600	83,000	97.0	48,300	58.2	120,000	44,000	.....	45,000	209,000	749,000	35,400	35,400	100.0	9,400
Rocky Mountain	160,900	143,800	89.4	32,100	22.3	1,793,000	.....	.....	25,000	1,818,000	657,000	99,900	98,400	98.5	9,400
California	914,500	884,100	96.7	490,000	55.4	13,062,000	.....	.....	2,975,000	16,037,000	98,698,000	190,800	190,800	100.0	49,900
TOTALS WEEK: July 2, 1932	3,852,000	3,661,600	95.1	2,265,700	61.9	38,823,000	15,542,000	1,826,000	5,950,000	62,141,000	130,834,000	1,739,700	1,663,100	95.6	463,300
June 25, 1932	3,852,000	3,661,600	95.1	2,312,000	63.1	38,913,000	14,743,000	2,367,000	5,950,000	61,973,000	129,864,000	1,739,700	1,663,100	95.6	460,700

Below is set out an estimate of total motor fuel stocks on U.S. Bureau of Mines basis for week of July 2, 1932, compared with certain July 1931 Bureau figures.

A.P.I. Estimate B. of M. basis Week July 2, 1932 (d)	39,423,000	17,593,000	5,950,000	62,966,000
U. S. B. of M. Motor Fuel Stocks July 1, 1931	41,198,000	14,139,000	4,828,000	60,165,000
U. S. B. of M. Motor Fuel Stocks July 31, 1931	37,151,000	14,494,000	4,620,000	56,265,000

(a) Stocks at refineries, except in California district, which includes stocks of finished gasoline and engine distillate at refineries, at water terminals and at sales distributing stations and any amounts in transit thereto.
(b) By districts, East of California only. In California, bulk terminal and in transit stocks are included under "At Refineries" heading. See note (a)
(c) Estimated. Includes motor fuel in pipe lines and unblended natural gasoline at refineries and plants, also blended M.F. at plants.
(d) Estimated to permit comparison with A. P. I. Economics Report which is on Bureau of Mines basis.

age of 70,000 barrels, and for the preceding seven-day period the average was about 60,000 barrels daily. This is the highest average for any two weeks period during 1932, and it has not been approached since the military shut-down of the East Texas pool in 1931 and a like movement in the Oklahoma City pool on August 5, 1931. Assuming the figures for Kansas and Oklahoma to be approximately correct, the liquidation of stocks in those two states is more than 33 1/3 per cent of that of the United States, which is said to be about 200,000 barrels daily.

Bus Increase Raises Per Car Gasoline Consumption

GASOLINE consumption kept in step with automobile registration from 1920 through 1924, when consumption moved out of line upward with the result that the amount of gasoline burned per automobile increased steadily from 1925 through 1931. These results are given in the study of economic factors influencing the domestic demand for gasoline by E. B. Swanson and H. A. Breakey of the Bureau of Mines.

Growth of total gasoline consumed as well as the increase in the amount used per motor vehicle registered is shown in the following table:

Year	Motor vehicles registered	Gasoline consumed per vehicle in barrels
1920	9,232,000	11.15
1921	10,463,000	10.38
1922	12,238,000	10.57
1923	15,092,000	10.52
1924	17,594,000	10.63
1925	19,937,000	11.35
1926	22,001,000	12.02
1927	23,133,000	12.96
1928	24,493,000	13.56
1929	26,501,000	14.19
1930	26,524,000	14.88
1931	25,814,000	15.63

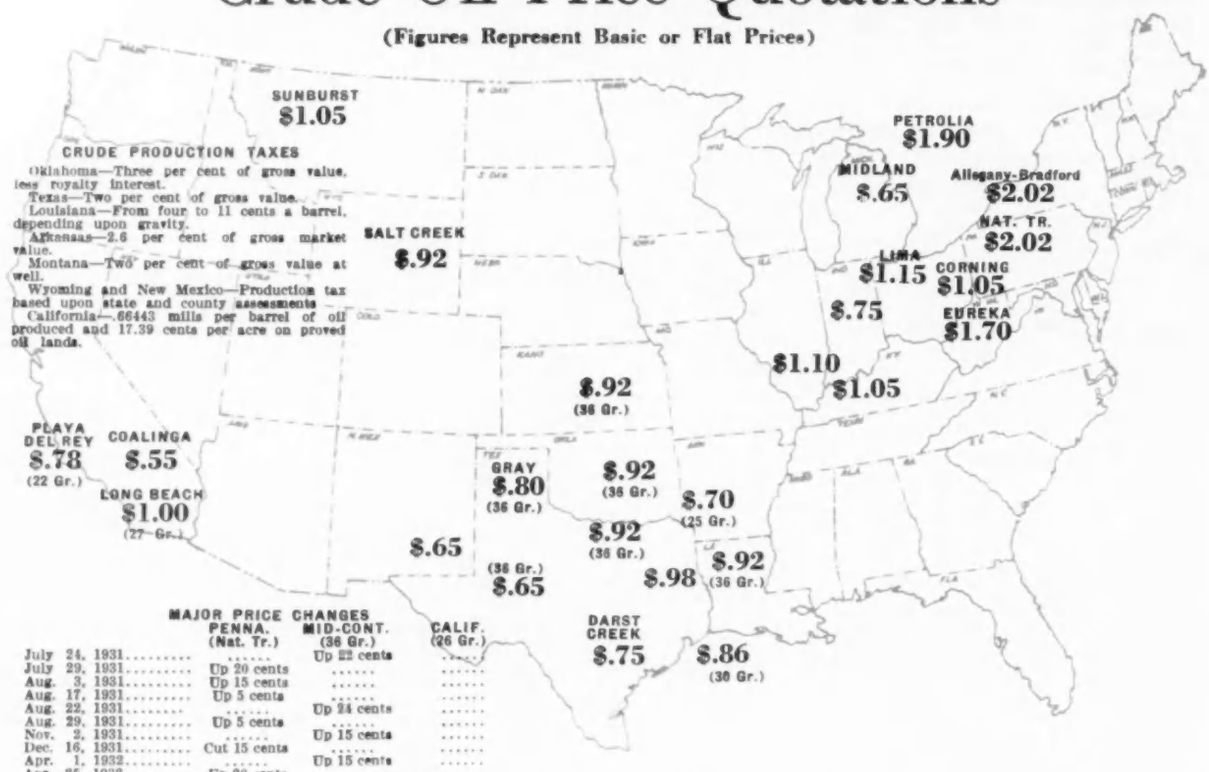
Reasons for this gain in consumption per motor vehicle are given as follows:

"When the calculated average annual demand began to indicate a consistent gain, in explanation thereof, attention was directed toward the extended mileage of improved highways, stimulating tourist traffic; the large number of closed cars in use, facilitating all-weather travel; the increased power of the modern automobile; and other factors which would contribute to the increased demand for gasoline by the individual car owner. While each of these factors would influence consumption, it has been recognized that the final results of the calculation were inconsistent with the actual facts and that the actual gasoline consumption of the average automobile has not increased at the rate indicated. It is apparent that certain factors, not present in the earlier years, entered into the more recent history of the gasoline demanded. The increased use of motor trucks, busses and taxicabs has been of particular significance."

The remainder of this study of consumption is devoted to the part played by the bus in stimulating consumption per motor vehicle. It shows that the number of passenger busses has increased steadily and that the amount of gasoline per bus has likewise increased. In 1925 23,800 city and inter-city busses in the United States consumed 3,391,000 barrels of gasoline. In 1931, 45,400 busses burned 11,468,000 barrels of gasoline. Over that period the number of these busses was a little short of double in numbers but the gasoline they consumed had increased by four times.

Crude Oil Price Quotations

(Figures Represent Basic or Flat Prices)



CRUDE PRODUCTION TAXES

Oklahoma—Three per cent of gross value, less royalty interest.

Texas—Two per cent of gross value.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 per cent of gross market value.

Montana—Two per cent of gross value at well.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

MAJOR PRICE CHANGES

	PENNA. (Nat. Tr.)	MID-CONT. (36 Gr.)	CALIF. (26 Gr.)
July 24, 1931	.....	Up 22 cents	.....
July 29, 1931	Up 20 cents	.....	.....
Aug. 3, 1931	Up 15 cents	.....	.....
Aug. 17, 1931	Up 5 cents	.....	.....
Aug. 22, 1931	.....	Up 14 cents	.....
Aug. 29, 1931	Up 5 cents	.....	.....
Nov. 2, 1931	.....	Up 15 cents	.....
Dec. 16, 1931	Cut 15 cents	.....	.....
Apr. 1, 1932	.....	Up 15 cents	.....
Apr. 25, 1932	Up 20 cents	...	.....
June 26, 1932	.....	.....	Up 25 cents

Official Postings and Differentials

(Revised to July 8, 1932)

CALIFORNIA: (Effective June 26, 1932).

Signal Hill, Seal Beach, Alamitos Heights, Huntington Beach, Olinda-Brea Canon, Torrance, and Richfield: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 69 cents; 21 gravity 74 cents; 22 gravity 79 cents; 23 gravity 84 cents; 24 gravity 89 cents; 25-25.9 gravity 93 cents, top posting for Torrance and Richfield; 26-26.9 gravity 97 cents, top price for Seal Beach, Alamitos Heights and Huntington Beach; 27-27.9 gravity $1.00; 28-28.9 gravity $1.03, the top price for Olinda-Brea Canon; 29-29.9 gravity $1.06; and 30-30.9 gravity $1.09, the Signal Hill top posting.

Inglewood: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 71 cents; 21 gravity 77 cents; 22 gravity 82 cents; 23 gravity 87 cents; 24-24.9 gravity 92 cents, the top price.

Playa Del Rey: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 69 cents; 21 gravity 74 cents; 22 gravity 78 cents; 23 gravity 82 cents; 24 gravity 86 cents; 25 gravity 91 cents; 26-26.9 gravity 96 cents, the top price. Oil here is subject to field gathering charge of 5 cents a barrel.

Athens, Rosecrans and Dominguez: 24-24.9 gravity 89 cents 25-25.9 gravity 93 cents; 26 gravity 97 cents; and 27-27.9 gravity $1.00 with three cents additional for each degree gravity upward, ending at 32-32.9 gravity $1.15.

Elwood Terrace: 33-33.9 gravity $1.04 and 6 cents more for each additional degree of gravity, ending with 37-37.9 gravity $1.28, all prices f.o.b. ship.

Whittier and LaHabra: 14 to 19.9 gravity 65 cents; 20-20.9 gravity 68 cents; 21 gravity 72 cents; 22 gravity 77 cents; 23 gravity 83 cents; and 24-24.9 gravity 89 cents, the top price.

Montebello: 14 to 20.9 gravity 65 cents; 21-21.9 gravity 67 cents; 22 gravity 70 cents; 23 gravity 73 cents; 24 gravity 76 cents; 25-25.9 gravity 80 cents, the top price.

Coyote Hills: 14 to 20.9 gravity 65 cents; 21-21.9 gravity 66 cents; 22 gravity 70 cents; 23 gravity 76 cents; 24 gravity 81 cents; 25 gravity 86 cents; 26 gravity 90 cents; 27 gravity 94 cents; 28 gravity 98 cents; 29 gravity $1.02; and 30-30.9 gravity, $1.05, the top price.

Santa Fe Springs: 24-24.9 gravity 73 cents; 25 gravity 79 cents; 26 gravity 84 cents; 27 gravity 89 cents; and 28-28.9 gravity 94 cents, with 4-cent differential for each degree of gravity upward to 35-35.9 gravity $1.22.

Newhall, McKittrick and Kern River: 14 to 19.9 gravity 55 cents.

Midway-Sunset, Elk Hills and Buena Vista: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 59 cents; 21 gravity 63 cents; 22 gravity 69 cents; 23 gravity 75 cents; 24 gravity 81 cents; 25-25.9 gravity 87 cents and 5-cent differential for each additional degree gravity ending with 30-30.9 gravity $1.12.

Lost Hills: Same as Midway-Sunset up through 25-25.9 gravity 87 cents, then 26-26.9 gravity 91 cents; 27 gravity 94 cents; 28 gravity 99 cents; 29 gravity $1.02; and ending 30-30.9 gravity $1.05.

Coalinga: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 59 cents; 21 gravity 62 cents; 22 gravity 65 cents; 23 gravity 68 cents; 24 gravity 72 cents; and ending 25-25.9 gravity 75 cents.

Wheeler Ridge: 14 to 19.9 gravity 55 cents; 20-20.9 gravity 57 cents; and 21-21.9 gravity 60 cents, with 3 cents more for each additional degree of gravity, ending 25-25.9 gravity 72 cents.

Below 29 gravity: 76 cents with differential of 2 cents for each degree to 40 gravity and above which is posted at $1.00.

Texas Panhandle: (Effective April 1, 1932)

Gray County: Below 35 gravity: 71 cents, with differential of 2 cents for each degree to 40 gravity and above which is posted at 88 cents.

Carson and Hutchinson Counties: Below 35 gravity: 66 cents with differential of 2 cents for each degree to 40 gravity and above which is posted at 78 cents.

West Texas: (Effective April 1, 1932).

Crane-Upton, Crockett, Ector, Howard-Glasscock, Pecos and Winkler Counties, Texas, and Lea County, New Mexico: 65 cents a barrel.

Southwest Texas: (Effective April 11, 1932)

Refugio: Heavy 80 cents.

Refugio: Light: (Same as Gulf Coast—see below).

Gulf Coast: (Effective April 1, 1932).

Goose Creek, Hull, Liberty, Orange, Pierce Junction, Mykawa, Moss Bluff, Raccoon Bend, Barbers Hill, Sour Lake, Spindletop, Sugarland, West Columbia, Humble and Refugio Light: Below 25 gravity: 80 cents, with differential of 1 cent for each degree to 40 and above which is posted at $1.00.

Mirando: 80 cents; **Salt Flat:** 75 cents; **Darst Creek:** 75 cents; **Pettus:** $1.00; **Markham:** Same as Gulf Coast.

East Texas: (Effective April 1, 1932)

Flat Price: 98 cents.

North Louisiana and Arkansas: (Effective April 1, 1932).

Caddo, Homer, Haynesville, Bull Bayou, Sabine, Cricton, De-Soto, El Dorado, Cotton Valley, Sarepta, Cartersville: Below 25 gravity 68 cents with differential of 2 cents for each degree beginning with 25 gravity and ending with 40 and above. Top price $1.00 a barrel.

Smackover: 65 cents.

Rocky Mountain States: (Effective April 11, 1932).

Salt Creek: Below 29 gravity 76 cents; 29-29.9 gravity 78 cents with differential of 2 cents each degree to 40 and above. Top price $1.00.

Elk Basin and Grass Creek: $1.20; **Big Muddy:** 98 cents; **Lance Creek,** $1.15; **Rock Creek:** $1.00; **Sunburst:** $1.05; **Osage:** 98 cents; **Cat Creek:** $1.20; **Pondera:** 90 cents; **Hogback, New Mexico:** 80 cents.

Mid-Western States: (Effective April 11, 1932).

Lima: $1.15; **Indiana:** 75 cents; **Illinois:** $1.10; **Princeton:** $1.10; **Wooster:** $1.25; **Western Kentucky,** $1.05.

Pennsylvania: (Effective April 25, 1932).

Bradford District: $2.02; **National Transit Oil:** $2.02; **Southwest Pennsylvania Pipe Line Oil:** $1.75; **Eureka Pipe Line Oil:** $1.70; **Buckeye Pipe Line Oil:** $1.55; **Corning Crude:** $1.05.

Michigan: (Effective May 17, 1932), **Midland:** 65 cents a barrel. **Muskegon:** 76 cents to $1.00 a barrel.

Canada: (Effective Nov. 3, 1931).

Petrolia: $1.90; **Oil Springs:** $1.97.

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FORGED STEEL—TYPE C

STRENGTH . . . Body forged from A. P. I. Grade C steel . . . split gland and seat of steel castings . . . outlet of extra heavy steel, electric arc-welded to the body.

SAFETY . . . Each body is given a 1000-pound test before shipment . . . test loads of more than twice the weight of the average casing string have been placed on the assembly.

ECONOMY . . . An efficient all-steel head, amply strong, yet light in weight and easy to handle, furnished at materially reduced prices.

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THE NATIONAL SUPPLY COMPANIES

Large Hole Helps Keep Deep Well *Straight*

ROY SILENT
Member A. S. M. E.

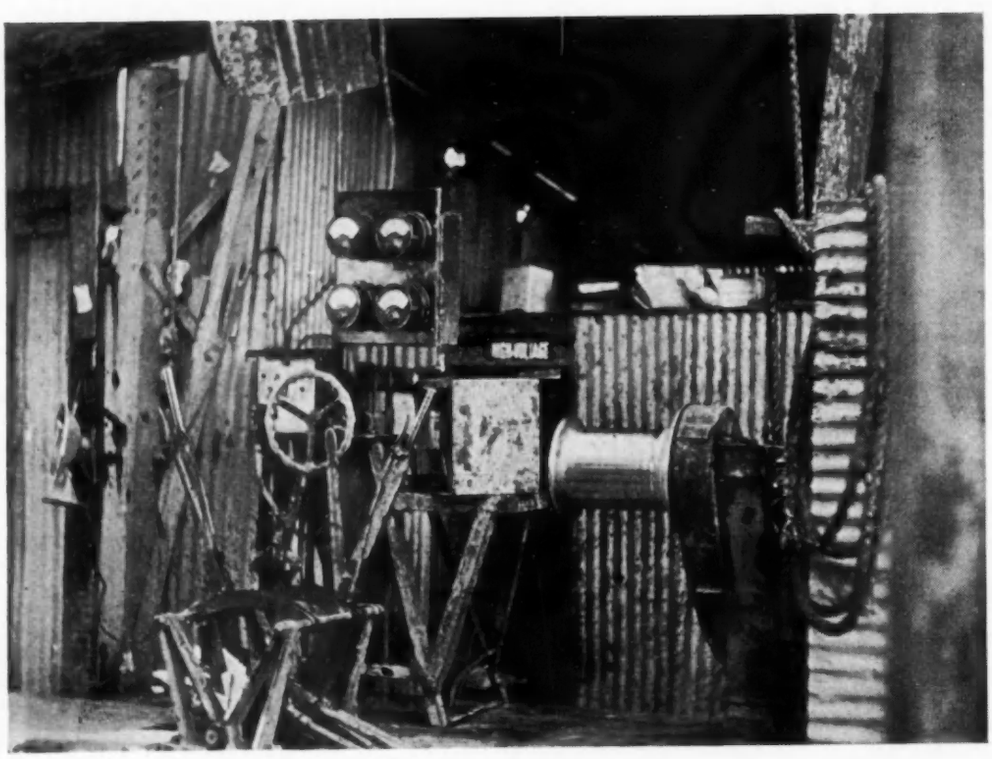
THE drilling of Powell & Stockton Investment Company's Courtner 1, on the Middle Dome of the Kettleman Hills has presented some very interesting features. This well is located on Section 32-22s-19w, and is in every sense a wildcat, being considerably east of the axis of the defined structure of the Kettleman Middle Dome and somewhat south of the proven structure of the North Dome. However, the indications of petroleum thus far have been encouraging.

This well was spudded November 21 through a 22-inch conductor pipe and on December 12 the surface string of 16-inch fusion weld 84-pound casing was cemented at 1935 feet. From 1935 feet drilling was commenced with a 15-inch bit and open hole was carried without further casing to the somewhat unusual depth of 7574 feet, using 6⅝-inch O.D. flush joint drill pipe. Repeated tests with acid bottles and other straight hole indicating devices showed this hole to be practically straight and plumb for its entire length, the maximum deflection from the vertical being less than two degrees.

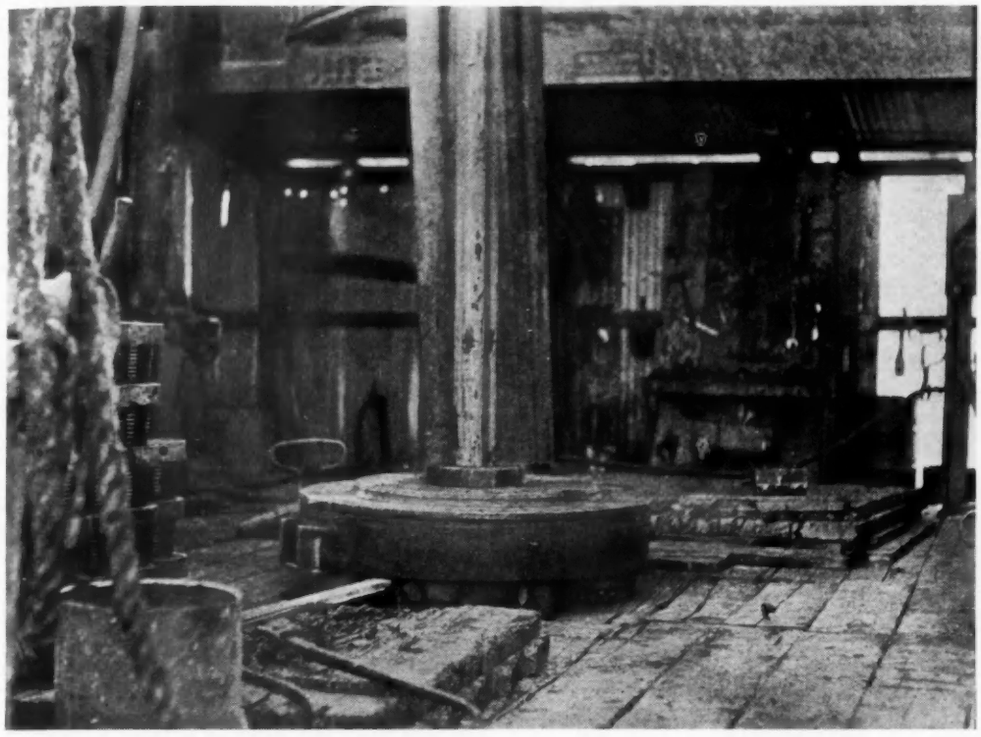
The straightness of this hole may be largely attributed to two factors, namely: The use of a long and heavy drill collar and the employment of the hydraulic feed rotary table. The drill collar used was 10 inches in diameter and 90 feet long when fully assembled. It was sectionally constructed, having one 30-foot section and three 20-foot sections, thus permitting various combinations of length and weight. It was bored throughout with a three-inch diameter hole giving a net weight of 238 pounds per foot or a gross weight of slightly over 10 tons for its full length. Thus its net weight in 72-pound mud would be about 202.2 pounds per lineal foot or something over nine tons for the 90-foot length. Using this weight of drill collar in connection with the bit pressure gage of the hydraulically controlled table, a pressure of approximately nine tons could be maintained on the cutting edge of the bit with the drill pipe still remaining in tension. Such drilling conditions cannot but produce a straight hole. However, in cases where almost vertical stratification of the formation are encountered special attention must be paid to the maintenance of low bit pressures and generally high rotative speeds. In this well the entire length of 90 feet of the drill collar was used to a depth of 6800 feet when it was shortened to approximately 58 feet.

As noted above the 6⅝-inch drill pipe was used to 7472 feet. The drill pipe weighs, including drill joints 27.706 pounds per foot, thus making the total weight amount to 207,000 pounds or 103.5 tons. This is probably as heavy a string as has been successfully handled in oil well drilling history. The 136-foot

*Engineer Doheny Stone Drill Co.



The Driller's Position, Showing the Lever Bank, Control and Indicating Instruments



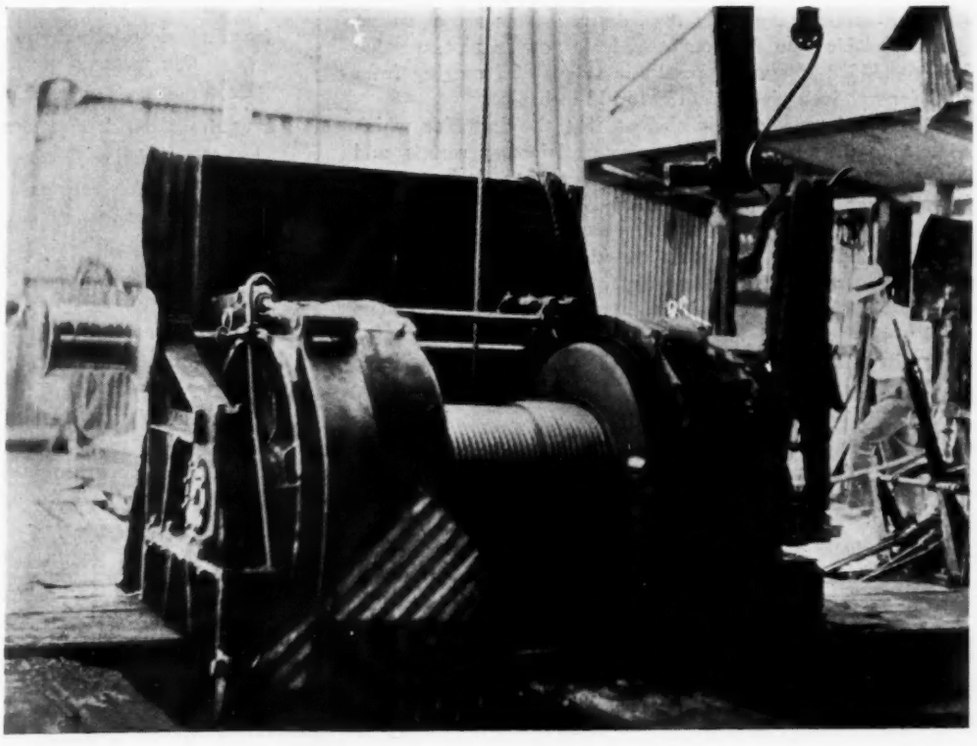
The Hydraulic Rotary

derrick was rigged with eight one-inch lines during the drilling to 6800 feet when 10 lines were rigged.

The six-speed draw works was driven by 150 horsepower polyphase synchronous eight-pole motor with a maximum running torque at 750 R.P.M. of 3900 pounds-feet. This outfit was equipped with a 10-point control having a stalled torque on the first point of five per cent of the maximum running torque. The motor was designed for 440 volts pressure and tests of the feed supply have shown from 440 to 450 volts constantly available. Using this combination the 103.5 tons of drill pipe and the 7.5 tons of drill collar and bit could be pulled from the 7574 depth in something less than three hours. When starting off bottom the ammeter indicated the hoisting motor as consuming 230 amperes of current with 10 lines rigged over the crown block.

At the present writing the crew is preparing to run 8⅝-inch flush joint casing to the bottom of the hole.

It is believed that the drilling of this well has had several unique points, namely: The carrying of the 15-inch diameter hole to 7472 feet; the amount of open hole of this size—1935 to 7472 feet; the 10-ton drill collar and the 103.5 tons of 6⅝-inch flush joint drill pipe.



Draw Works

Calculation of
Flow of Gas Through Pipes

LEONARD L. HOHL
Engineer, Berkeley, California

ACCEPTED formula for loss of head due to friction due to steady fluid flow in pipes is usually given in the form $h_f = f\,(4d)\ (u^2/2g)$. This formula may be transposed into the form $p = f\,(43.5Lw^2/\rho D^5)$ or $p = f\ (0.00000336Lw^2/\rho D^5)$

Older formulae used f as a constant quantity. Thus Geipel and Kilgour use a value corresponding to 0.033 for steam; Gutermuth 0.0296 for steam and 0.0104 for compressed air; Hawksley uses 0.0281; Martin, 0.0261; Hurst, 0.0260; Eberle, 0.0198; Hausbrand in "Verdampfen, Kondensieren und Kuhlen gives 0.054 for hydrogen. It was soon recognized that an invariable friction factor could not be used except over a limited range. About 1880 and shortly thereafter Gustave Schmidt in Germany, Unwin in England and later Babcock and Carpenter in America proposed formulae for f_1 varying with the diameter only. These formulae had the general form $f_1 = K(1 + b/D)$. Schmidt's formula for steam reduced to our units gives $K = 0.0019$ and $b = 7.9$ (D in inches); Babcock, for steam, used $K = 0.0027$, $b = 3.6$; Carpenter used $K = 0.0026$, $b = 3.6$; Unwin for air uses $K = 0.0028$, $b = 3.6$. The values for K were determined by Unwin on the basis of steam flowing at 100 feet per second velocity. The values of f thus obtained range from 0.013 for 12 inches to 0.068 for the Schmidt formula; 0.014 to 0.051 over the same range for Babcock or Carpenter formulae. Such values for the larger size pipe have been characterized as low by such authorities as the late Prof. Goodenough in Mark's Handbook.

Lorenz, in Germany about 1890, derived, from a compilation of all available data for compressed air flow in pipe, a value for $f = 0.0132d^{-0.30923}$ which results in values of f ranging from 0.028 for one-inch pipe to 0.0132 for 12-inch pipe.

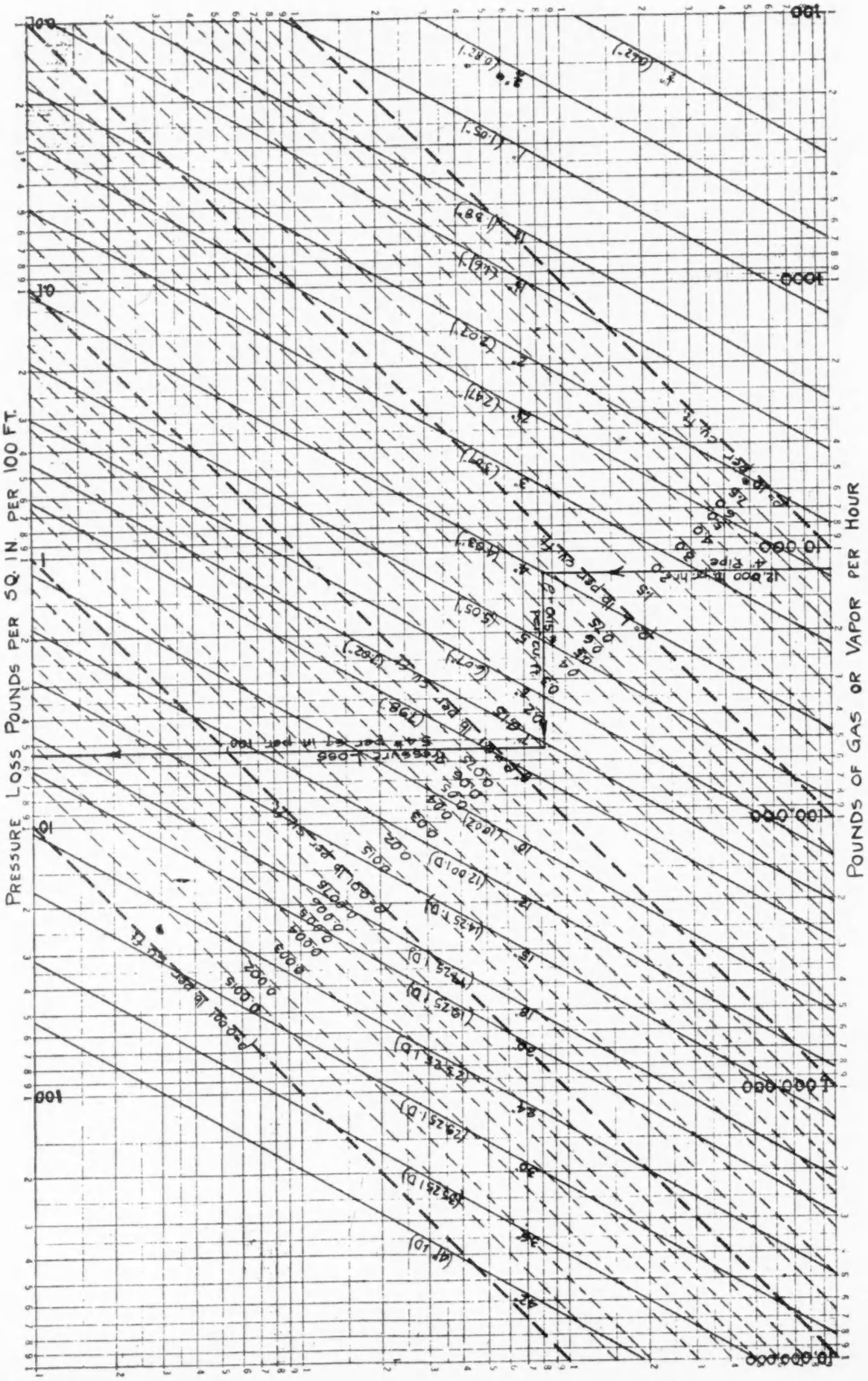
From the foregoing it is obvious that the formulae which relate f to the diameter only give unsatisfactory results, and that other factors must enter. An attempt to devise such a formula was made by Fritzsche in 1908 when he devised a formula for $f = 0.0192\,w^{-1/7}$. Although Fritzsche's experiments were confined to air flowing in one-inch and 1½-inch pipe 60 feet long over a wide range of temperature, pressure and velocity. The formula has been extrapolated enormously (up to D = 48") with all kinds of gases, with surprisingly good results in most cases, thus showing that the factors considered in this determination of f more nearly approximated true values than anything heretofore devised.

The now generally accepted theory is that f varies as a function of $du\rho/\mu$ a fact pointed out by Osborne Reynolds, the English physicist, as early as 1883 but not generally known to or used by engineers until the last decade. A number of authorities have compiled experimental data over a wide range and by plotting the various values of f against $du\rho/\mu$ have derived average curves or equations to represent the curve so plotted. An example of an equation derived from such data is given by M. Aisenstein (Hyd. Div. A.S.M.E. Dec. 1928 Hyd. 51-7). Aisenstein derives the relation: $f = 0.167\,(du\rho/\mu)^{0.170}$. The writer believes that Aisenstein's values are somewhat low especially for small values of $du\rho/\mu$ and prefers to use $f = 0.217/(du\rho/\mu)^{0.178}$ deduced by himself from the same data. This latter value corresponds more nearly to the data of McAdams of the Massachusetts Institute of Technology and also approximates the data of Hazen and Williams hydraulic tables c = 120 for pipe four to six years old. The general formula for

THIS discussion leads up to and presents a diagram for the solution of the problem of pressure drop for the case of steady flow of gases through pipe, covering the region of turbulent flow. The diagram is designed for the drop through 100 feet of standard size commercial pipe. The diagram is based upon the method of using a friction factor f, which is a function of the Reynold's number $(du\mu/\rho)$ *applied to the general formula* $h_f = f_1\ (L/d)\ (u^2/2g) = 4f_1\ (L/d)\ (u^2/2g)$. *The diagram is applicable to air or steam flow problems over ordinary ranges as well as that of many other gases without correction factor. A few gases require a percentage correction, given in a supplementary table. These variations are due to variations of viscosity which in the case of gases varies as about the 0.178 power (roughly 1/6 power) of a quantity of small magnitude and consequently do not have a very great influence.*

NOTATION

a = *Area of cross-section of pipe in square feet.*
b = *Experimentally derived value used in certain friction factors.*
d = *Actual inside diameter of pipe in feet* $= D/12$.
D = *Actual inside diameter of pipe in inches* $= 12d$.
f = $4f_1$ = *friction factor—no units.*
g = *Gravitation constant* = 32.2 *ft. per sec.*^{2}.
h_f = *Frictional loss of head in feet.*
K = *Experimentally derived value used in certain friction factors.*
L = *Length of pipe in feet.*
p = *Pressure drop in pounds per square inch.*
Q = *Cubic feet of gas per second passing through pipe* $= w/\rho$.
r = *Hydraulic radius in feet = area/wetted perimeter* $= d/4$ *in case of circular conduits.*
u = *Mean velocity in feet per second.*
w = *Pounds of gas per second.*
W = *Pounds of gas per hour.*
ρ = *Density of gas in pounds per cubic foot.*
μ = *Absolute viscosity of gas in English units (poises x 0.0672).*
$v = \mu/\rho$ = *Kinematic viscosity in English units.*
$\frac{du\rho}{\mu} = \frac{du}{v}$ = *Reynolds number.*


PRESSURE LOSS POUNDS PER SQ. IN. PER 100 FT.
POUNDS OF GAS OR VAPOR PER HOUR

flow with this value of f inserted then becomes $h_f = [0.217/(du\rho/\mu)^{0.178}]\ (L/d)\ (u^2/2g)$ and for $L = 100'$, $g = 32.2$ and D in inches, $h_f = (6.293v^{0.178}u^{1.822})/D^{1.178}(W^{1.822}/D^{4.822})$. This may be transformed into $p = 581\ (\mu^{0.178}/\rho)$ or $p = 0.0001926(\mu^{0.178}/\rho)(W^{1.822}/D^{4.822})$.

The last two equations are the basic equations used for the diagram. The value of $\mu^{0.178}$ being small and varying only over a limited range was taken as a constant quantity corresponding to $\mu = 12.1 \times 10^{-6}$ poundal seconds per square foot (180 micropoises) a quantity which will cover most ordinary cases within reasonable limits of accuracy, and for such cases as may require it, a table of correction factors is given. This table shows that the corrections are in the case of air and steam negligible for ordinary ranges of work. The corrections for a number of other gases are often small enough to be ignored in practice. The greatest positive correction to be applied is in the case of mercury vapor, about 25 per cent; the greatest negative for hydrogen, ammonia; and hydrocarbons, 10 to 20 per cent.

The results of the diagram should not be applied to pressure drops in excess of about 20 per cent of the absolute mean pressure of the section under investigation. Where greater pressure drops occur the pipe line under consideration should be divided into sections with smaller pressure drops using a new mean density of gas for each section.

The example shown on the diagram—12,000 pounds per hour of gas with density of 0.15 pound per cubic foot passing through four-inch pipe loses 5.4 pound pressure per 100 feet. If the gas is air or steam no correction is necessary. If it had been natural gas the correction indicated in the table for methane and ethane are —7 per cent and —14 per cent, respectively, or about —10 per cent mean. As these are the most important constituents of natural gas a correction of —10 per cent is made, giving a pressure drop of 5.4 pounds —10 per cent or 4.9 pounds. If it had been mercury at 700°F. the table indicates a correction of 25 per cent or 5.4 x 1.25 = 6.9 pounds drop.

CORRECTION PERCENTAGES FOR p ON ACCOUNT OF VISCOSITY

Gas	Temp. °F.	% Correction	Gas	Temp. °F.	% Correction
Air	60	0	Carbon dioxide	—7	—6
Air	600	+9	Carbon dioxide	32	—5
Steam	100	—10	Carbon dioxide	210	0
Steam	500	0	Carbon dioxide	575	+7
Steam	1000	+8	Methane	32	—10
Oxygen	32	0	Methane	70	—7
Oxygen	130	+2	Ethylene	32	—12
Nitrogen	—8	—2	Ethylene	60	—11
Nitrogen	90	0	Ethylene	210	—6
Hydrogen	—8	—15	Ethyl Alcohol	212	—8
Hydrogen	212	—10	Ethyl Alcohol	413	—5
Chlorine	32	—6	Ether	32	—19
Chlorine	70	—4	Ether	97	—16
Mercury	523	+20	Chloroform	62	—11
Mercury	716	+26	Chloroform	142	0
Nitrous oxide	—6	—1	Benzine	66	—16
Nitrous oxide	212	0	Benzine	212	—8
Nitric oxide	32	—1	Ammonia	—110	—19
			Ammonia	32	—13
Nitric oxide	70	0	Ammonia	212	—6
Sulphur dioxide	32	—7	Acetylene	32	—13
Sulphur dioxide	60	—5	Ethane	—110	—19
			Ethane	32	—14
Hydrogen sulphide	32	—8	n Butane	60	—15
Hydrogen sulphide	70	—2	n Butane	212	—10
Carbon monoxide	32	—2	iso Butane	70	—16
Carbon monoxide	70	0	iso Pentane	212	—14
			iso Pentane	413	—8

Cooling Water Recycled Through Underground Source Sand

RE-CYCLING of gas in an oil sand requires compression, which generates heat, which requires cooling water. When the supply of water is limited, does not the idea of re-cycling present itself? The cooling tower so familiar to the oil industry is an application of the re-cycling principle, but the idea of re-using water in that manner does not appeal to the imagination in a district where mountains send down leaping streams from dripping hillside springs. At least they did in Eastern Kentucky until the drouth of 1930, when the streams ceased to flow and the wells gave evidence that underground supplies secure replenishment from the rain.

It was then that Swiss Oil Corporation inaugurated a system of re-cycling cooling water to a sand which previously had so abundantly supplied water that once run through the jackets of the engines and compressors it was spilled into the creek.

Swiss Oil Corporation's repressuring operation is in the Union District of Johnson and Lawrence Counties, in Eastern Kentucky, one of those picturesque regions such as was in mind when someone wrote "and only man is vile," to which the user of compressors was forced to add "and water."

The water in the many small streams that empty into the Big Sandy River is brackish and contains a large amount of scale-forming solids. Under the oil zone is a thick bed of water-bearing sandstone called the Salt Sand. Water from this sand is sweet and practically devoid of scale-forming solids, but it does contain iron oxide which deposits upon the coils in the low cooling tower after being heated. It had been thought that the supply of this water was unlimited until the drouth of 1930, when it showed signs of depletion.

Water for the compressor station was produced by air lift, and after serving its purpose of cooling was run into a small creek. When the wells began failing, the used water was run back into the well from which it was produced, but soon this caused the water produced to be too hot for cooling purposes. Then an auxiliary well, into which the used water was flowed, was drilled to the water sand some distance from the plant. A second inlet well was provided through conversion of an old oil well that was so cased as to permit water from the surface flowing to the water sand between the surface casing and the oil string. Both of these inlet wells are far enough down stream from the plant that the bulk of the iron in the water is deposited in the creek bed before going back into the ground. Lines leading to the inlet wells are laid in the bed of the creek; the pipe is perforated and screened to prevent entrance of solid matter. Valves on the lines are closed when the creek is flowing after rains, preventing contamination of the water sand from the objectionable surface water.

Water from the sand into which the water is returned is also used for domestic purposes, but has been found contaminated with typhoid. To correct this, lime was introduced with the returned water with some evidence of success.

Introduction of the warm water has had no appreciable effect upon the temperature of the water produced, either at the compressor station or plant. The system of return requires no attention except when the valves are closed after a rain.

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RB-2

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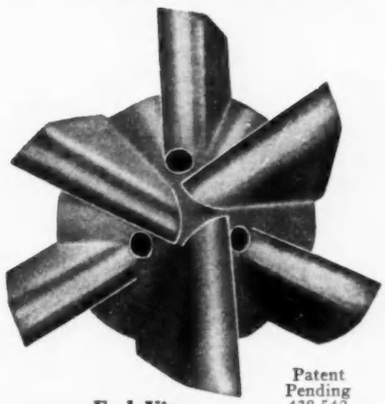
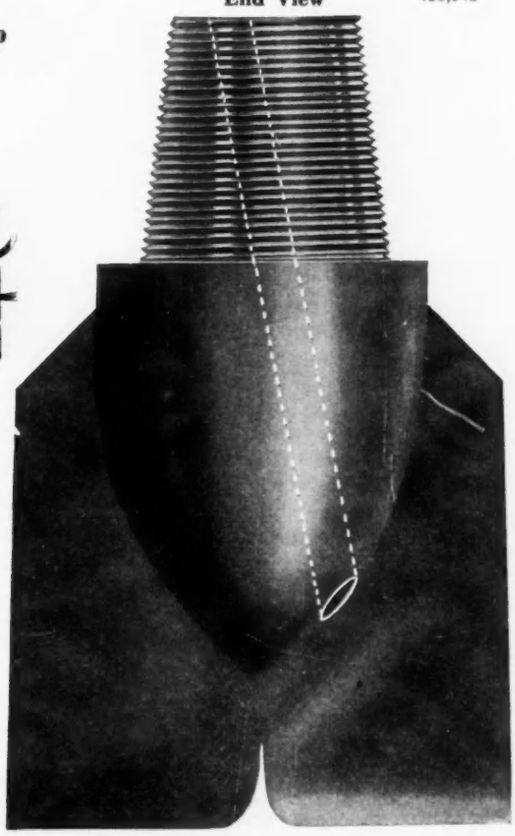


Patent Pending 438,542

End View



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Patent No. 487553

GUMBO BIT

Patent No. 1,206,488

Application of . . .

Water Analysis to Petroleum Technology

STANLEY GILL
Consulting Engineer, Houston, Texas

THE petroleum industry comprises three great divisions. These are the production of crude petroleum from the wells, the transportation of the crude from oil fields to refineries, and the refining of the crude to the finished products of commerce.

By far the most extensive applications of chemistry to the oil industry are in the refining division. It has been estimated[1] that some 12 per cent of all chemical engineering graduates are associated with the petroleum industry, a greater number than in any other single industry. It is conservative to estimate that at least 90 per cent of the chemists and chemical engineers in the petroleum industry are engaged in refining operations. However, there are important and valuable applications of chemical methods in both the producing and pipe line divisions of the industry, and many of the larger oil companies employ staffs of chemists and chemical engineers who are engaged in the application of chemistry to production and pipe line problems, and in research designed to extend the use of chemical methods in these fields.

By far the most important and general application of chemistry to petroleum production are those which involve, and are based upon, water analyses. The producer of petroleum is, in general, but slightly interested in the chemical composition of the oil which he produces; his concern with the composition of the crude is bounded by the refiner's opinion as to its value. The crude oil is, however, almost always accompanied by water in considerable quantity; the producer must drill through water sands to reach the oil measures; must exert precaution to prevent, for as long as possible, the entrance of water with the oil he is producing; and when the inevitable takes place, and his well "goes to water," must lift water to obtain the oil, and is confronted with the necessity of disposing of the water produced. In many fields, this water causes rapid and costly corrosion of equipment. From these angles, water is an unmitigated nuisance and expense to the producer. In other cases, lack of water is the cause of expense and delay, and the producer is confronted with the necessity of developing a supply of water suitable for drinking purposes, for making up the mud fluids which are used in drilling wells, for feeding boilers, or for cooling compressors and internal combustion engines. Obviously, analysis of water plays a part in the solution of every problem which is associated with the development of water supplies, or with the disposal of excess water. Water analysis serves, not only to solve problems in which water is the villain in the play, but also takes advantage of the inevitable presence of water to lead to rapid and inexpensive methods of geological exploration, of control of drilling operations, and of solution of certain production problems.

This paper is limited to a brief and general survey of the application of water analysis to petroleum production operations; no attempt is made to discuss exhaustively any of the applications, but typical examples are used to illustrate cases in which data obtained by analysis of waters have been profitably employed.

Methods of Analysis

In almost all of the cases in which water analyses find use in petroleum production operations, relatively simple analyses are adequate. For many purposes, entirely adequate data may be secured by the determination of chloride, sulfate, carbonate, bicarbonate, calcium and magnesium. This simple scheme of analysis is most desirable where a great number of analyses must be made; in one geological study with which the writer was associated, more than 10,000 such analyses were made. Determinations other than those noted above are, occasionally, made for special purposes. Thus, hydrogen sulfide is always determined, when it is present. Potassium and sodium are sometimes determined, although a simple calculation "as sodium" is usually sufficient. Silica, iron and aluminum may be determined. Data on iodine and bromine have been employed, in some instances, for geological correlation, as have also determinations of nitrate, of barium and of strontium. The presence of the two latter in oil well brines has, occasionally, resulted in incrustation of well tubing and flow lines.

Although there has been no real attempt to standardize practice of reporting analyses, chemists of the oil industry are quite generally agreed upon reporting analyses in parts per million, and in classifying waters by the Palmer system. Figure I is a form of water analysis report card used by one large oil company. This type of report, giving both concentrations in parts per million and Palmer reacting percentages, is very useful in the comparison of different waters.

Much attention has been devoted to the development of graphical methods of representation of water analyses, to

WATER ANALYSIS RECORD

Well No. Location				
Water Sand—Depth				
		PTS. PER MILL	R. VALUE	R. VALUE PC.
Sampled by	Na+K			
Analyst	Ca			
Per Cent.	Mg			
	Fe+Al			
Primary Alkalinity				
Secondary Alkalinity	SO_4			
Primary Salinity	Cl			
	HCO_3			
Secondary Salinity	CO_3			
	SiO_2			

FIGURE 1
Form of Analysis Report Card Used by a Large Oil Company

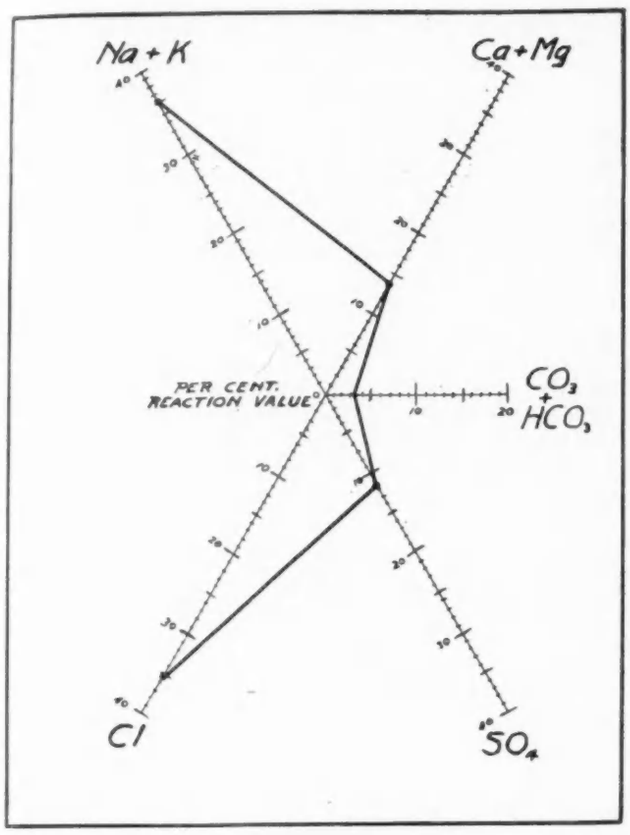

FIGURE II
Tickell System of Plotting Water Analysis

make possible rapid comparisons; all of the methods which have been proposed are subject to certain draw-backs. A brief description of these graphical methods serves to illustrate their weaknesses.

Tickell[3] has proposed a method of plotting the percentage reacting values, as calculated by the Palmer method, upon six symmetrical axes, and joining the points by straight lines to form a figure, the shape of which is typical of the composition of the water. Figure II illustrates the Tickell method of plotting. The method possesses the advantage of ingenuity, but is not particularly practical. The graphs compare only chemical compositions, without regard to concentration; this is desirable in some instances, but a method which does not take concentration into account cannot be generally applied. A more serious objection to the Tickell system lies in the difficulty of comparing and classifying a large number of analyses by its use; sorting analyses on the basis of the shapes of the characteristic figures is a difficult, inexact and unsatisfactory and bewildering task.

Reistle[4] suggests plotting the results of water analyses, expressed in parts per million, upon a vertical cumulative scale, the cations being plotted, in a standard order, above a base line, while the anions are plotted downward from the base line. Figure III shows this method of plotting, and the order of arrangement used by Reistle. Only the vertical scale is significant; "any convenient width" is used on the horizontal scale to form blocks which may be distinguished by coloring, by cross-hatching or in any other convenient manner. Mr. Reistle's system of plotting is without particular merit for practical purposes. The total length of the block for a given water is, it is true, representative of the concentration, while the proportionate lengths of the individual blocks within the plot of an analysis represents the chemical relationship of the several ions. Comparison of a large group of analyses by this method is impossibly laborious, the sorting out of chemically similar waters involving detailed calculation of the proportions of each individual plot.

Parker and Southwell[5] employ a system of plotting analyses which is appreciably superior to the Tickell or Reistle methods. The Parker system is illustrated by Figure IV. Each ion is represented by a block, of which the vertical dimension is the percentage of ion in the dry total solids of the water, while the horizontal dimension is the concentration of the ion in the water. (Palmer "reacting value percentages" would be more logical as units of vertical dimension than the units employed by Parker.) This method of representation takes into account both concentration and ionic composition, and can be used quite satisfactorily for the comparison of water analyses.

The writer has used two methods for the graphical comparison of water analyses. Both are based upon the Palmer "properties of reaction",[2] and upon the fact that a water classified by the Palmer system is either "primary alkaline"

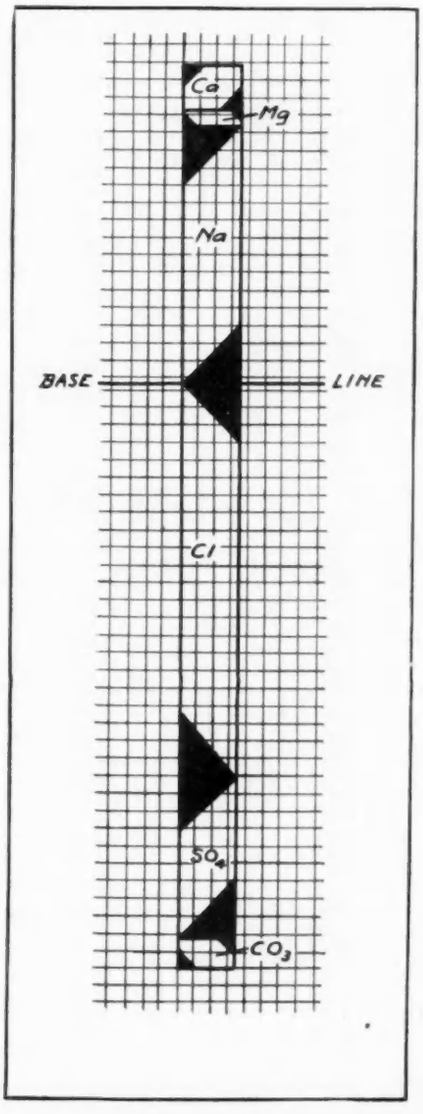

FIGURE III
Reistle System of Plotting Water Analysis

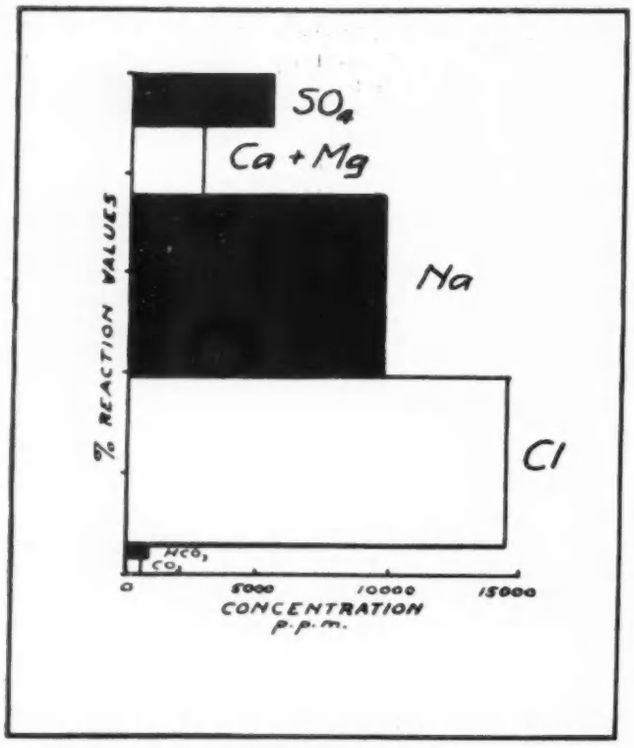

FIGURE IV
Graphical System of Representation Used by Parker & Southwell

or "secondary saline"—never both. The first of these graphical methods is shown in Figure V. This consists of two sets of triangular co-ordinates, one for primary alkaline waters and the other for secondary salines. The axis "Primary Salinity—Secondary Alkalinity" is common to both sets of co-ordinates. On this form of graph, the chemical composition of the solids of any water is represented by a single point. Concentration differences are not shown, but may be represented by the use of different colors, or of point symbols of differing forms, to differentiate ranges of concentration.

A simpler method of representation, which is satisfactory in many cases, is illustrated by Figure VI. The vertical axis is used to plot concentrations, either of total solids, or of an ion, such as chloride, which serves as an index of concentration. The horizontal axis is used to plot Primary Alkalinity or Secondary Salinity, which are the incompatible properties of reaction under the Palmer system. This method is approximate, since it does not take into account variations between primary salinity and secondary alkalinity; it is, however, adequate for many purposes of comparison.

Both of these methods, as compared to those previously described, possess the advantage of representing an analysis as a single point, and thus making possible very rapid comparisons. On the other hand, they do not differentiate between chloride and sulfate, carbonate and bicarbonate, or calcium and magnesium.

Description of these graphical methods of comparison is justified by need for comparatively simple means of comparison of analyses in connection with geological studies. However, such complete comparisons can usually be done away with in the final application of a method; although they are indispensable to the development of a procedure,

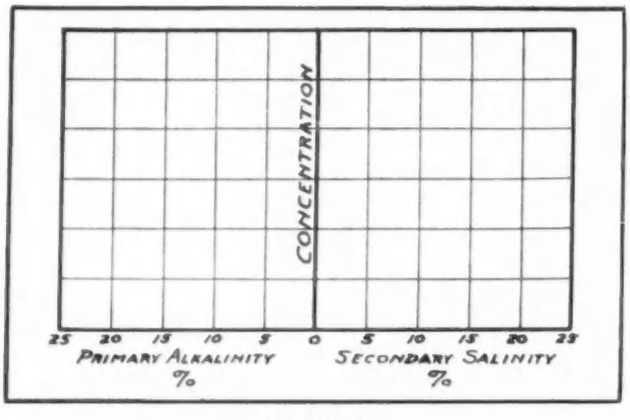

FIGURE VI
A Simple Graphical Method of Comparison Which is Applicable in Many Cases

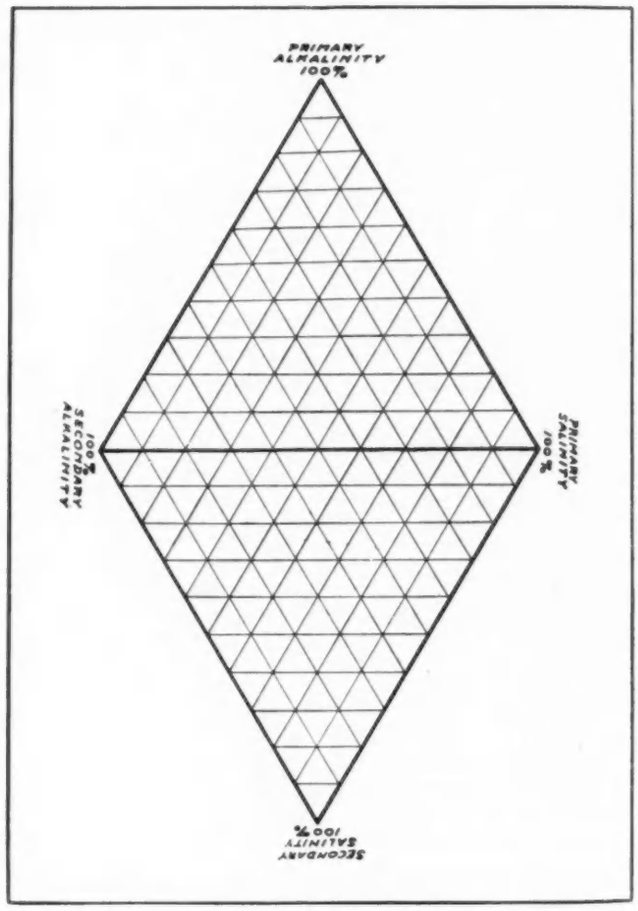

FIGURE V
Use of Triangular Coordinates for Comparison of Water Analyses. Concentrations are Donated by Plotting Points in Different Colors or by Use of Symbols

the final application can almost always be based upon some single factor or simple combination of factors of water composition.

Use of Water Analyses in Exploration

Exploration with the object of discovering the location of structures favorable for the accumulation of oil and gas is one of the most important activities of the petroleum geologist. Location of such structures, which frequently lie hundreds, or thousands, of feet below the surface is, at best,

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Oklahoma
Texas

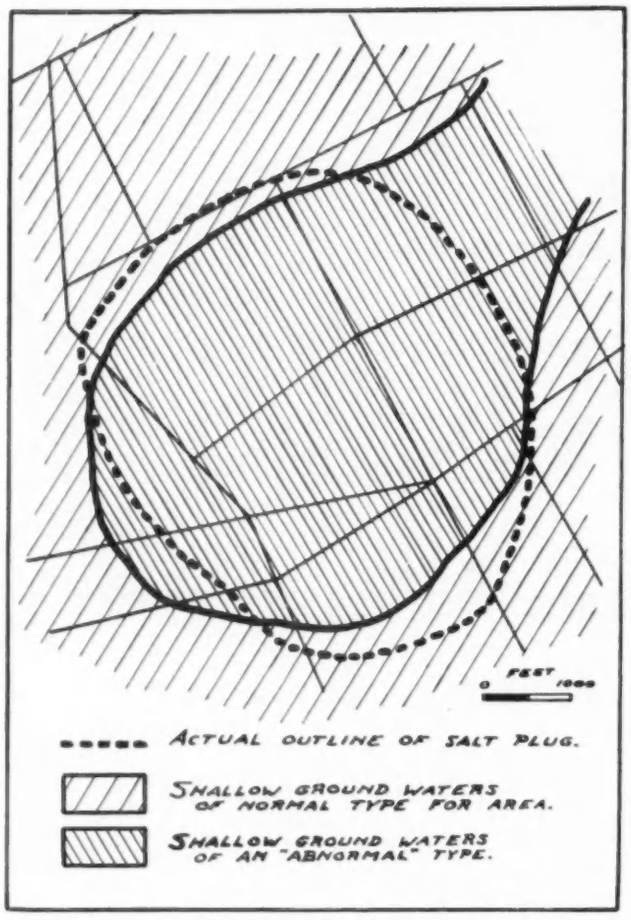
FEET
ACTUAL OUTLINE OF SALT PLUG.
SHALLOW GROUND WATERS OF NORMAL TYPE FOR AREA.
SHALLOW GROUND WATERS OF AN "ABNORMAL" TYPE.

FIGURE VII
Comparative Shallow Salt Dome, Outlined by Anamoly in Composition of Shallow Waters

a very difficult procedure; any tool which will bring forth additional information applicable to exploration possesses definite and immediate value.

Geologists and chemists of Gulf Production Company, working under the direction of H. E. Minor and Dr. F. M. Seibert, have established, definitely, the value of analysis of waters from shallow (10 to 100 feet) wells for the exploration of deep structures in certain areas. Unfortunately, this work cannot be discussed here; Mr. Minor has prepared, for presentation before the American Association of Petroleum Geologists, a most excellent paper describing the work which he has done. It is to be hoped that this paper will be published in the near future.

Two hypothetical examples, Figures VII and VIII, illustrate the type of results which have been obtained by the application of this method, and the indications of deep structures which have been obtained from analysis of waters from very shallow wells. Figure VII shows a definite change in type of surface waters from a normal type, prevailing over non-productive territory, to a distinctly different type above a salt dome, which is the common oil producing structure of the Texas and Louisiana Gulf Coast. When the domes are comparatively close to the surface (less than 1000 feet), and where the sides of the salt plug dip steeply, the area of abnormal waters outlines the salt plug quite closely, as shown in Figure VII. Where the dome is deep-seated, or over very flat domes, the conformity is less exact. Figure VIII illustrates the case of a deep-seated dome; here, the anomaly in type of surface waters does not outline the dome, but does indicate the presence of the deep-seated structure.

This method of exploration by analysis of surface waters affords great promise; it cannot, of course, displace other methods, but should serve as a simple and inexpensive method of preliminary reconnaisance.

Sub-Surface Geology

Studies of the composition of waters which are found in formations penetrated during the drilling of wells have been found to possess great value in establishing geological correlations. A great deal of work has been done along this line in practically every oil-producing territory of the world; even though much of the information which has been obtained is considered as confidential by the oil companies, a voluminous literature of the subject has been built up.

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This is the first portion of Mr. Gill's discussion of Application of Water Analysis to Petroleum Technology. In the second installment which will appear in the issue of July 18, he goes further in the discussion of underground water, and concludes with the disposition of oil field brines.

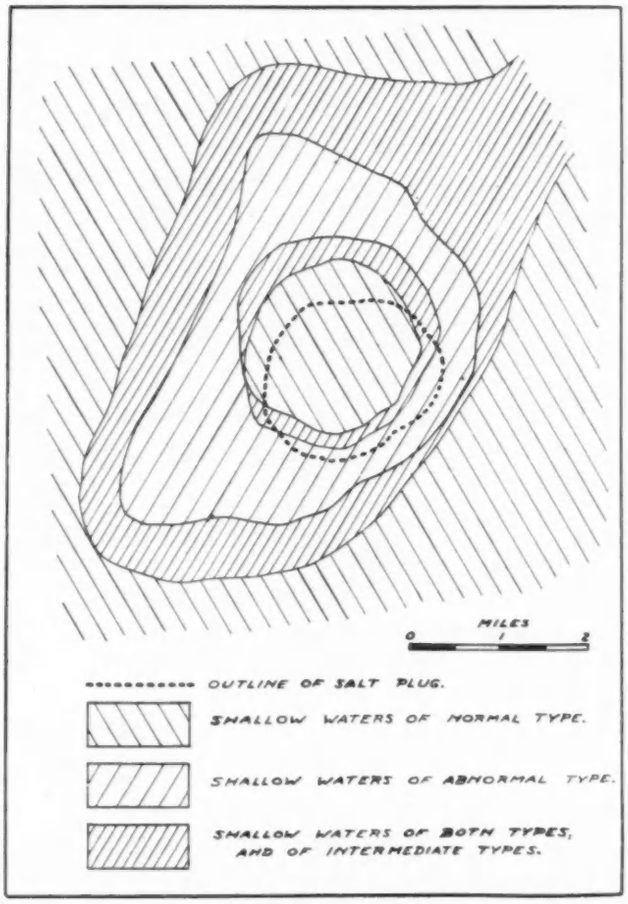

MILES
OUTLINE OF SALT PLUG.
SHALLOW WATERS OF NORMAL TYPE.
SHALLOW WATERS OF ABNORMAL TYPE.
SHALLOW WATERS OF BOTH TYPES, AND OF INTERMEDIATE TYPES.

FIGURE VIII
Anamoly in Composition of Shallow Waters Associated With Deep-Seated Salt Dome

Oil As Circulating Medium Results in Larger Initial

FLOYD SWINDELL
Staff Representative

CONSIDERABLE interest attended the completion of Phillips Petroleum Company's Gates 1, NWC NE SW NE Section 22-11n-3w, since it was the first in the Oklahoma City pool to use oil as a circulating medium while completing. During the early stages of development wells were completed with heavy mud, as operators believed this practice best in contending with formation pressures which are thought to have originally been 2500 pounds or more per square inch. Later a majority of the larger operators resorted to the use of a column of fresh water which eliminated much of the gas cutting experienced when mud was used. Recent investigations and discussion have developed a belief among many engineers that comparatively small initial yield may be due to sealing off of the pores or interstices between the pores by mud fluid. This may be accomplished either by coating the sand face or by penetration of mud particles into the pores after which they may expand to such an extent that the formation pressure is unable to force them out.

Traveling Distance of Mud

Several good examples of the distances through which mud fluid may travel through a sand can be found in the Oklahoma City pool. A few months ago a well lost circulation while drilling in the Wilcox sand in the northern portion of the pool. The area was one of close drilling due to townlot subdivision and diverse ownership. Shortly after loss of circulation in the drilling well, offset producers in three directions started making water along with their oil production. In another instance a test about to be completed was standing with a hole full of mud. An offset producer was opened for production and almost immediately the mud column in the drilling well began to drop, indicating that a small change in the differential pressure caused the sand to take mud at a rapid rate.

Weight of Fluid Column

It is not uncommon that wells completed with water produce water along with oil for several weeks or several months depending upon the number of times they are opened for production during the early life of the well. When the pressures exerted by a long column of water are known this fact is not hard to understand. The average depth of wells in the Oklahoma City pool is approximately 6500 feet and a majority of operators complete with 6⅝-inch casing set on or near the top of the producing formation. Calculated on the basis of 6⅝-inch casing having an inside diameter of 6.25 inches and set on top of the sand, the hydrostatic pressure at the sand face would be about 2800 pounds per square inch, assuming a specific gravity of 1.00. Original formation pressures in the Wilcox sand are thought to have been about 2500 pounds per square inch or possibly more. The present average Wilcox pressure in the southwestern area of the pool is approximately 2035 pounds per square inch, making a differential of about 800 pounds per square inch when fresh water is used.

The Oklahoma City Wilcox is a very loosely bonded sand throughout a greater portion of the producing area. Local spots are even less consolidated and the porosity probably varies by as much as 10 per cent locally. The southwestern portion of the pool which is now under active development has yielded a rather variable lot of completions, initial production ranging very widely between offset wells. Phillips Petroleum Company, being one of the larger acreage owners in the area decided to experiment with the use of oil as a substitute for mud and water. Since large volumes of high pressure gas are encountered in many of the wells ordinary crude oil was not thought adaptable due to the possibility of gas cutting. Accordingly the company field engineers decided to use a special oil perfected by the refinery laboratory at Okmulgee. Originally it was intended that the oil run about 28 gravity but the oil actually used was 25 gravity.

Gates 1, which was selected for the experiment, was drilled to the top of the sand at 6480 feet, and seven-inch casing set at 6477 feet. The sand was penetrated to 6490 feet, giving a penetration of 10 feet and a distance of 13 feet below the bottom of the casing. The circulating system, which is relatively simple, consisted of four 210-barrel tanks arranged in series. Oil is taken from one end of the system passed through an ordinary type steam slush pump and into the hole through the drill pipe. Returns are carried from the hole through the sample box and into a 4-foot by 16-foot, plain inside, separator, tilted at one end to permit cuttings to settle out. The used oil is then returned to the other end of the system where additional opportunity is offered for settling.

Only 136 Barrels Lost

A total of 886 barrels of special oil were used in completing the well. Of this amount 750 barrels were returned to the storage system, showing a loss of only 136 barrels to the formation. Success of the experiment is evidenced by the fact that Gates 1 produced initially at the rate of about 755 barrels an hour as compared with 73 barrels per hour for the company's Beighler 1, the nearest east offset, and 46 barrels per hour for Garver 1, which is several locations northwest of Gates 1 and apparently located about the same in regard to structure. Wellesley Petroleum Company et al's Cowell 1, SEc NW SW NE Section 22-11n-3w, a southwest offset which had a pentration of 79 feet, or almost eight times that of Gates 1, had an initial production of 696 barrels per hour, or 59 barrels per hour less than the Gates well.

Field work on the experiment was under the direction of L. B. Holland, Oklahoma City superintendent for Phillips Petroleum Company and originator of the idea of using special circulating oil. Nature of the oil used is not being made public at this time but it probably will be made available for the use of other operators under the name "Phillips 66."

CALIFORNIA FIELDS

Kettleman Well May Set Record. 10,000-Foot Well Making Good Time. Possible Revival at Huntington Beach.

BRAD MILLS, *Staff Representative, Los Angeles, California*

Huntington Well May Lead to Drilling Campaign

Huntington Beach, Calif.—Completion of a 600-barrel well in the townlot sector at Huntington Beach by Superior Oil Company may not stimulate wide interest in the 4400-foot zone, but the new producer did make an unusual showing for this zone and should not be classed with the mediocre pumpers finished in the past. The well was completed on the compressor and is flowing from about 475 feet of formation.

Completion of any type of producer in this field may have a more important meaning than a larger producer in many other fields, due to the nature of development in this townlot district. A large number of operators would drill or deepen to any zone which shows its ability to produce satisfactorily. Many producers find themselves near the marginal line which divides the profitable from the unprofitable operations, and would welcome a larger production if they could be assured of it without a large expenditure. The 4400-foot zone is not a new formation by any means, but the discovery that good wells could be completed in it in certain parts of the field might lead to additional drilling.

Wildcat Below 10,000 Feet And Making Good Time

Santa Maria, Calif.—Western Gulf Oil Company is making fast time in Bradley 1, Santa Maria wildcat which has established a new California depth record at 10,144 feet and which is searching for the Vaqueros formation after coring a record thickness of hard brown shale. A fast and uniform pace has been maintained in this well since the 9000-foot mark was passed. The company has set no definite stopping point, but it is believed that as long as the brown shale continues and progress is so easy, drilling will be continued.

The former depth record for California was held by Chanslor-Canfield-Midway Oil Company's Hobson A-2, a semi-wildcat in the San Miguelito field which was drilled to 10,030 feet and plugged back to above 8000 feet. Other very deep California wells which held the depth record for a short time were Standard Oil Company's Mascot 1, Midway test which was drilled to 9629 feet and which will be deepened; Shell Oil Company's Williams 1, Semitropic wildcat which was drilled to 9700 feet and abandoned, and several wells which were drilled to 9000 feet or deeper.

N. Belridge Land Owners Press for Development

Bakersfield, Calif.—Development of the very deep zone recently discovered in the North Belridge field may be started soon, as the result of crude price increases which bring the base quotation high enough to make drilling clauses effective.

Although completion of a good well by Belridge Oil Company at 8062 feet opened an entirely new producing level, the lease clause which calls for drilling after the price has reached a certain figure promises to force more activity than the usual desire to start operations merely on the strength of a discovery. It is understood that landowners have not been reluctant to remind the oil companies of their obligations.

Continental Oil Company, Associated Oil Company, Belridge Oil Company, Ohio Oil Company, Union Oil Company and Richfield Oil Company hold leases in the district, and it is known that Union Oil Company and Continental Oil Company are considering the drilling of wells to the new producing formation opened by Belridge Oil Company.

The possibility that the new producing zone may be found in other fields will also affect activity along the west side of the San Joaquin valley. The Lost Hills, South Belridge and other edge fields will ultimately be affected by the discovery.

Barnsdall's Good Luck Not With It at Wheeler Ridge

Bakersfield, Calif.—The usual good fortune which has long been with Barnsdall Oil Company in California seems to have deserted them so far as the small structure north of Wheeler Ridge is concerned. The company is abandoning its K. C. L. 1 at 7126 feet, following failure to develop important showings at any depth. The well was located on what appeared to be a slightly tilted anticline, but the accumulation was evidently absent.

North Dome Deep Well Takes In 1600 Feet of Temblor

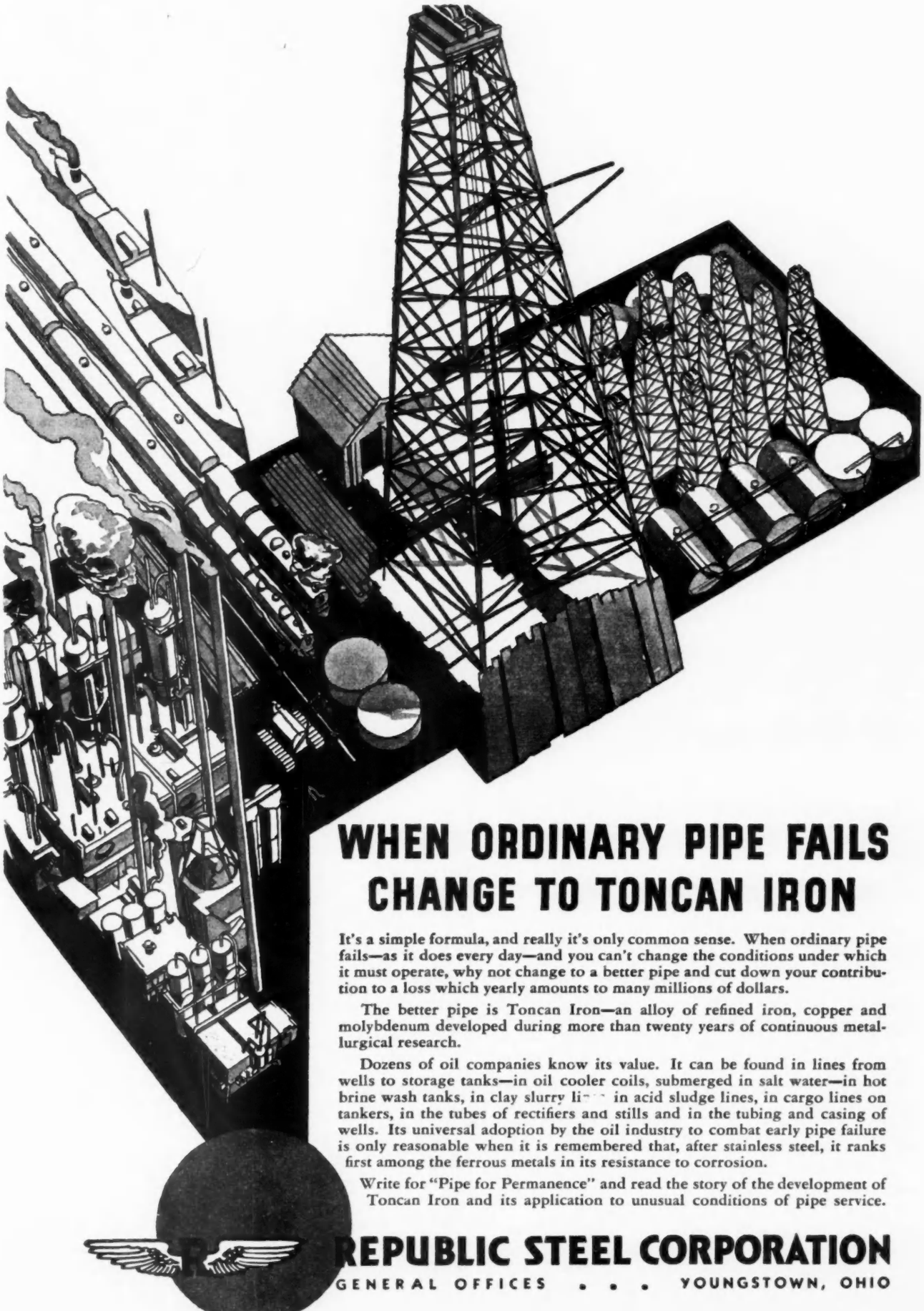
Coalinga, Calif. — Kettleman North Dome Association is completing No. 21-1P on the North Dome at 8997 feet and should establish a new depth record for commercial production in the field. More than 1600 feet of Temblor formation was cored below the 9⅝-inch shutoff at 7261 feet, and the well will be tested from the greater part of this thickness. A 6⅝-inch combination string was landed at 8947 feet and cemented through perforations at 7743 feet. All of the top part of the formation which produces most of the gas and very light oil was shut off, and a satisfactory gas-oil ratio is expected.

The gradual increase in the average well depth on the North Dome has been an interesting development. The first wells were completed a short distance below 7000 feet and were considered very deep producers. The top of the Temblor formation was included because operators did portion of the zone. Well depths were gradually increased and a heavier oil was developed. Cementing through perforations to shut off the upper part of the formation was successful, and a low gas-oil ratio was obtained with a larger production of heavier oil. It is now the custom to shut off all of the portion of the Temblor zone which was most desired at first. The net result has been the completion of much deeper wells than were expected on the North Dome.

North American Oil Consolidated plugged back to 9093 feet in Elsinore 1, flank test on the North Dome, perforated the 4¾-inch casing from 8560 feet to 8940 feet and swabbed to 3000 feet in an effort to determine the possibilities of the intermediate portion of the Temblor. Salt water rose more than 600 feet in the hole and the well was shut down. This test has been a distinct disappointment, and was given at least an even chance to produce. It appears to be on the extreme edge of the field, and there is strong doubt as to the value of the lease.

Kettleman North Dome Association encountered the brown shale at 8190 feet in No. 76-34Q, edge test on the North Dome, and should make a very deep completion of a well located on the southeast plunge of the structure.

Efforts to extend and define the field have been important, but the line drawn by the best geologists and accepted by



WHEN ORDINARY PIPE FAILS CHANGE TO TONCAN IRON

It's a simple formula, and really it's only common sense. When ordinary pipe fails—as it does every day—and you can't change the conditions under which it must operate, why not change to a better pipe and cut down your contribution to a loss which yearly amounts to many millions of dollars.

The better pipe is Toncan Iron—an alloy of refined iron, copper and molybdenum developed during more than twenty years of continuous metallurgical research.

Dozens of oil companies know its value. It can be found in lines from wells to storage tanks—in oil cooler coils, submerged in salt water—in hot brine wash tanks, in clay slurry li[illegible] in acid sludge lines, in cargo lines on tankers, in the tubes of rectifiers and stills and in the tubing and casing of wells. Its universal adoption by the oil industry to combat early pipe failure is only reasonable when it is remembered that, after stainless steel, it ranks first among the ferrous metals in its resistance to corrosion.

Write for "Pipe for Permanence" and read the story of the development of Toncan Iron and its application to unusual conditions of pipe service.

REPUBLIC STEEL CORPORATION

GENERAL OFFICES . . . YOUNGSTOWN, OHIO

most companies is proving nearly correct. The main exception to this expected field limit is on the northwest plunge, where good production has been developed beyond the lines drawn by conservative geologists.

Finding of the brown shale around 6700 feet in North Kettleman Oil & Gas Company's Lillis-Welch 1, extreme flank test on the northwest plunge of the North Dome makes the intermediate leases look very promising. Some of the best completions in the field have been finished on the northwest flank, but such a gradual dip to a point three miles beyond Superior Oil Company's Huffman 1 was hardly expected. Should production be developed on Section 24-21-16, the northwest plunge will take on an entirely new valuation.

L. E. Bishop et al are considering development of the Barbour lease, located in the north part of Section 34-21-17 and apparently off structure. A study of wells which have failed and which were higher on structure than one which might be drilled at any point on the Barbour lease, shows that the outcome of a test near the north line of the section is extremely doubtful.

California Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
DOMINGUEZ—		
Shell Oil Co., Reyes 43	500	5300
ELWOOD—		
Pacific Western Oil Co., Permit 92-9	150	3530
FRUITVALE—		
Bankline Oil Co., No. 2B, 21-29-27	400	4000
HUNTINGTON BEACH—		
Superior Oil Co., Jones 1	600	4412
KERN COUNTY—		
W. W. Stabler's Southwestern 1,4-11-18	*	1812
KINGS COUNTY—		
Associated Oil Co.'s Jacalitos 1, 22-21-15	*	6198
LONG BEACH—		
General Pet. Corp., Mission 3	50	7486
MIDWAY—		
Republic Pet. Co., No. 35A, 7-32-23	200	3187
ROUND MOUNTAIN—		
Chanslor-Canfield Midway Oil Co., Coffee 1, 1-28-28	175	1800
WHEELER RIDGE—		
Barnsdall Oil Co.'s K. C. L. 1, 15-11-20	*	7126

New Operations

ARROYO GRANDE—J. D. Martin, No. 2, 5-32-13.

BUTTONWILLOW — Milham Exploration Co., S. P. 43-7, 7-28-23.

COYOTE HILLS—Standard Oil Co., Murphy-Coyote 112, 18-3-10.

NORTHERN CALIFORNIA
Wildcat Drilling Report
(Wells shut down not included)

KERN COUNTY

BLACKWELL'S CORNER — F. Fowler's Lincoln 1, 15-26-19, fsh for drill pipe 2385 ft.

BUTTONWILLOW — Milham Exploration Co.'s S. P. L. 43-7, 7-28-23, dr out cmt 512 ft; S. P. L. 21-17, 17-28-23, rig. Wilshire Oil Co.'s Nordon 1, 7-29-24, sd 6990 ft, plugged back and made several tests.

DEVIL'S DEN—Tom Hannah's No. 1, 25-25-18, dr shale 3435 ft.

McKITTRICK—T. H. Purman's No. 1, 22-29-21, dr shale 4313 ft. Welport Oil Co.'s No. 2, 19-29-21, sdtr iron 235 ft; No. 8, 26-29-21, making production test 1300 ft, cmt 6⅝-inch cas 1175 ft.

SHALE HILLS—Rio Grande Oil Co.'s Utting 1, 7-27-19, dr shale 2635 ft.

SANTA BARBARA COUNTY

CARPENTERIA—Texas' Community 1, 33-4-25, dr hard brown shale 3855 ft.

COAL OIL POINT — Bolsa Chica Oil Corp.'s No. 191-1, re-dr 1500 ft, plugged back from 5510 ft. Equity Oil and Gas Co.'s Vivian 1, dr shale 2400 ft.

GOLETA—General Pet.'s More 1, 21-4-28, re-drilled to 4275 ft, will test again.

LOS ALAMOS—Barnsdall's Careaga 1, 31-8-33, dr shale 5115 ft.

SANTA MARIA—Western Gulf Oil Co.'s Bradley 1, 5-9-33, dr shale 10,075 ft, this is deepest active test in the world.

SANTA ROSA ISLAND—Standard's No. 1, dr shale 975 ft.

VENTURA COUNTY

CONEJO—American Oil Co.'s Powell 1, 33-2-20, dr hard rock 1815 ft.

HOPPER CANYON — Bardeen Oil Co.'s Lankershim 2B, 13-4-19, will make production test, td 2757 ft.

OXNARD—Magu Synd.'s Utt 1, 17-1-21, fsh for drill pipe 5810 ft.

PIRU—Torrey-Ventura Oil Co.'s No. 1, 32-4-18, dr shale 3728 ft.

RINCON—Woodruff Pet. Corp.'s Woodrow 1, 4-3-24, sdtr iron 2830 ft. J. W. Miller's Valenzuela 1, 23-3-24, grading for rig.

SANTA PAULA — E. M. Lesperance's Boosey 1, 31-4-20, rig.

SESPE—Harmon and Deal's No. 1, 35-5-19, rigging cable tools. H. A. Ivars' Star 7, 1-4-20, dr surface shale 100 ft. Merchants' Pet. Co.'s Cochran 6, 1-4-20, grading for rig site.

SIMI—Charles and Hoxie Anderson's Marr 11, 6-3-17, dr 800 ft.

SULPHUR MOUNTAIN — Wilshire Oil Co.'s Thompson 1, 20-4-21, grade.

TIMBER CANYON—Superior's West 3, 13-4-21, rigging rotary.

MISCELLANEOUS

KINGS COUNTY—Kettleman Reef Ridge Oil Co.'s Seymour 1, 10-23-16, will make test at 1150 ft; Seymour 2, 10-26-16, lcn. Mid-California Oil Co.'s No. 1, 11-23-16, lcn. Knudsen and Schmidt's Avenal 1, 36-23-17, fsh for tubing 5655 ft. Eagle Oil and Gas Co.'s No. 2, 15-23-20, 1085 ft. Lacal Natural Gas Co.'s No. 1, 32-22-20, dr 350 ft. Glen Woodward's No. 1, 32-22-20, dr shale 425 ft.

SAN LUIS OBISPO COUNTY—Emerich Oil Co.'s Holland 1, 22-32-22, dr shale 1616 ft. Kent and McDonald's No. 1, 3-32-22, re-drilling 1750 ft. Panorama Oil Co.'s Vishu 1, 7-31-21, re-drilling 2450 ft.

STANISLAUS COUNTY—Rushing Oil and Dev. Co.'s No. 1, 20-3-13, dr shale 2575 ft.

TULARE COUNTY—Gravity Exploration Co.'s Buck 1, 11-24-23, fsh for drill pipe 2210 ft. Sheldon and Gholson's No. 1, 34-22-27, dr shale 400 ft. Inland Valley Oil Co.'s Smith-Rea 1, 24-17-24, sr 2061 ft, will run and carry 6¼-inch cas.

YOLO COUNTY—Pacific Northern Gas and Oil Co.'s Guinda 1, 23-12-3, sd 3000 ft.

SOUTHERN CALIFORNIA

BUENA PARK—Buena Park Oil & Dev. Co.'s Langstaff 1, 34-3-11, lcn, will not drill.

FULLERTON — Orange Thorpe Corp.'s Skinner 1, 32-3-10, dr shale 3428 ft.

HERMOSA BEACH — Corniel Oil Co.'s Hermosa 1, 31-3-14, re-drilling 2350 ft. Tulsa Oil Co.'s Hermosa 2, 6-4-14, co 3140 ft.

LYNWOOD—William L. Jones' Graham 1, 31-2-12, dr out cmt 1572 ft.

NEWHALL—W. T. Ball's Newhall 1, 34-32-16, dr hard sand 2020 ft. Southern California Drilling Co.'s No. 2, 13-3-16, dr shale 1555 ft.

PLAYA DEL REY—Cooperative Dev. Co.'s No. 1, 26-2-15, dr shale 3100 ft.

SAN DIEGO COUNTY—All wildcats in this county are sd.

Permits for New Wells in California Again Drop Back

Los Angeles.—After a spring spurt of several weeks' duration, permits to drill new wells in California have settled sharply down to a very few per week. During the greatest activity of a few months ago, as many as 25 permits were issued during a single week. The number has dropped to four or five per week, but a much larger average should be expected with higher crude prices. The total new wells this year is 164, as compared with 232 at the same time last year. The latter part of last year was so lean, however, that the last six months of 1932 may succeed in bringing the total for this year to a greater number than at the close of last year. Operators in several fields are considering the development of leases which must be drilled when the price of crude reaches a certain level, or where discoveries are made. This should result in a large number of permits. It is known that curtailment interests are working to reduce the number of new wells drilled, but lease provisions may more than offset this force to limit drilling operations. The number of new wildcats started has been small during the past two months, but the total during the spring months was higher than expected.

Abandoning Old Producers Near Los Angeles City Hall

Los Angeles.—Abandonment of a number of shallow wells in the old Los Angeles city field marks the end of a group of producers which were at one time among the best in the state, and revives an historical chapter which involves most of the early California operators. C. C. Harris Oil Company has filed notice of intention to abandon eight wells in the city and only a short distance from the city hall. Wells producing near North Broadway were completed at various depths between 400 feet and 1600 feet. The first wells were shallowest, but they produced a much lighter oil than the deeper completions of several years later. Abandonment of this group of wells leaves a large number of pumping in various sections along the north part of the city. The city ordinance has prohibited the drilling of wells in this part of the city for several years, but no provision was made for eliminating wells already on production. Due to the small production per well, the general appearance of the district is bad. The operators have naturally spent as little money as possible, the result having been the development of a bunch of rickety old derricks which would detract from the appearance of the roughest country.

OKLAHOMA FIELDS

Erratic Nature of Formation in Fish Pool Further Shown. Southeastern Kansas Strippers Given Market Outlet.

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

Watching Well in Oklahoma City "Hazardous" Sector

Oklahoma City, Okla.—Indian Territory Illuminating Oil Company is waiting on cement to set in its Miller 1, CNE NE NW Section 35-11n-3w, in the hazardous southwestern portion of the Oklahoma City pool. Top of the Oswego lime was encountered at 6412 feet, top of Prue sand at 6490 feet, and top of the Wilcox sand at 6675 feet. Six-inch casing was set at 6601 feet and total depth is 6680 feet. This test is interesting because of its location one half-mile south of Phillips-Shell's Berg 1, which produced only 115 barrels in four hours on gas lift. Miller 1 is said to be 120 feet structurally lower than Berg 1 and 126 feet lower than Lord 1, SE NE NE Section 35-11n-3w, which is slightly over a half mile to the southeast, and had an initial production of 2683 barrels in eight hours. Although top of the Wilcox sand is dangerously low in Miller 1, it is still thought to be 30 feet or more above the oil-water contact. The danger line in the southeast quarter of Section 36-11n-3w is set at minus 5425 feet and the Miller at 6680 feet is at minus 5392 feet.

Indian Territory Illuminating Oil Company's Wickline 1, CSW SW NW Section 26-11n-3w, north offset to Phillips and Shell's Berg 1, is waiting on cement after logging Wilcox sand from 6543 to 6545 feet, the total depth. Its completion will be closely watched since it offsets a well which is almost a dry hole and its position with regard to the sand is probably even less favorable than Berg 1.

Anderson-Prichard et al's Bailey 1, SW NE NW SE Section 22-11n-3w, produced 1599 barrels the first hour from Wilcox sand logged at 6463 to 6564 feet, the total depth. It is a southwest offset to R. A. McArthur et al's Pruitt 1, which was completed for 5821 barrels in four hours, or at the rate of 1455 barrels per hour.

The largest completion of the week was Jacobs Oil Corporation et al's Sinopoula 1, CSL SW NE SE Section 34-12n-3w, in the northern portion of the pool. Production for the first four hours gauged 5749 barrels with gas at the estimated rate of 100,000,000 cubic feet. Wilcox sand was logged from 6288 to 6465 feet and broken sand from 6465 to 6479 feet.

Phillips Petroleum Company et al had top of the Wilcox sand at 6305 feet and were drilling below 6415 feet in Brimm 1, SW NE NW NE Section 3-11n-3w. Skelly Oil Company was waiting on cement to set in Moon 1, CNL NW SW NE Section 22-11n-3w, irregular west offset to Phillips Petroleum Company's Gates 1. Top of the Wilcox sand was reported at 6489 feet with 6⅝-inch casing set three feet above it. Total depth is 6565 feet.

Sinclair Prairie Serving Southeast Kansas Strippers

Tulsa.—Announcement has been made by Nelson K. Moody, president of Sinclair-Prairie Oil Marketing Company, that it is connected to and taking all stripper oil in the southeastern stripper area of Kansas. The company connected to a number of properties in May, 1932, when a shut down was threatened through withdrawal of purchasing companies. After a conference between Governor Woodring and company officials it was agreed that about 5500 barrels daily production would be taken care of as soon as arrangements could be made. Shortly after Prairie Oil & Gas Company withdrew as a general purchaser on January 1, 1931, several companies made temporary or limited contracts giving relief to the producers of stripper oil. Among the larger purchasers was Stanolind Crude Oil Purchasing Company which recently announced its withdrawal as a purchaser in the southeastern Kansas area.

Ramsey Petroleum Co. Plans Wildcat Campaign

Oklahoma City, Okla.—Ramsey Petroleum Company is moving in material for a wildcat test on what is known as the Duck Club property, NW NW NE Section 10-16n-4w, 6½ miles west of Guthrie and about two miles south of Eason Oil Company's Cotcha 1, SE NE SW Section 34-17n-4w, completed November 13, 1930, with an initial production of 510 barrels in 10 hours from Lower Layton topped at 4918 feet and drilled to 4942 feet. Production gradually declined until it was being rated at 375 barrels when shut in.

Ramsey Petroleum Company has indicated that it may start tests on several structures the leases upon which are nearing expiration, or upon which deals are pending.

West Seminole Well Fails To Perform as Promised

Seminole, Okla.—The Texas Company completed Sandlin 2, CNE SE SW Section 29-9n-6e, in the West Seminole pool, after having difficulty which delayed operations for more than a week. Wilcox sand was shot at 4095 to 4120 feet and the 6⅝-inch casing damaged at 4029 feet. While swaging the casing a bit and jars were lost. After recovering the tools operators swaged out the pipe and when cleaning out eight feet off bottom had 2000 feet of oil in the hole. At this point the well was being estimated at 2000 barrels initial. On first gauge it swabbed 180 barrels in five hours before being thoroughly cleaned. It produced only 1080 barrels in 24 hours on gas lift. It is one location east and three south of Amerada Petroleum Corporation's Chase 1, discovery well in the pool.

Spears Drilling Company was drilling below 1650 feet in Phillips 1-A, NE SE SW Section 17-9n-6e, twin to the discovery well in the East Earlsboro Extension. This test will try for production in the upper horizons.

Sinclair Prairie Oil & Gas Company ripped six-inch casing from 3954 to 3955 feet and pumped 40 barrels the first 24 hours from Meyer 1, NW SW SE Section 32-7n-4e, old producer in the St. Louis pool. Seventeen barrels of the production were from the Hunton and the remainder from the Simpson formation. Old total depth was 4292 feet in the Wilcox sand.

Carr City Pool

Amerada Petroleum Corporation completed L. Tiger 5, NW NW SE Section 3-8n-5e, for 561 barrels in 24 hours on gas lift, and L. Tiger 6, SW SW NE Section 3-8n-5e, for 738 barrels on gas lift after shooting with 20 quarts in Wilcox sand at 4183 to 4206 feet. Wilcox sand in the former was logged at 4149 to 4168 feet. Third completion for the week was Empire Oil & Refining Company's Brown

5, SE NE SE Section 3-8n-5e, making 265 barrels on its potential test. Production is coming from Wilcox sand at 4167 to 4188 feet.

Konawa

Droppleman Drilling Company had a spray of oil at 2729 feet and was drilling ahead in Charty 1, NE NE SW Section 29-6n-6e, in the southern portion of Konawa.

Sacred Heart-West Konawa

Magnolia Petroleum Company's School Land 1, CNE NE NW Section 36-6n-4e, staged a comeback after showing indications of being dry. Plugged back from Wilcox sand at 3882 to 3894 feet, it cleaned out and made one flow of 134 barrels in 35 minutes and went dead. Production was coming from 2893 feet, where nine-inch casing is set to 3000 feet, probably in a sand of the Calvin series. Operators were preparing to clean out and the well probably will be shot. The same operator's Martin 1, CSE NE SW Section 34-7n-4e, which had a hole full of water at 4320 to 4322 feet, was plugged back to 4292 feet and water successfully shut off. The hole was bridged at 3575 feet and the formation shot with five quarts at 3515 feet, and five quarts at 3450 feet, after which it swabbed 35 barrels in 12 hours on July 3 and 28 barrels in 12 hours the following day. Production is believed to be coming from sand at 3500 to 3515 feet. The formation was to be shot with 20 quarts at that depth.

Arrow Drilling Company's Noble 1, CNE SE SE Section 26-6n-4e, another Wilcox dry hole which apparently will make a small producer in upper horizons, was shot at 2896 feet and was being cleaned out with a hole full of oil thought to be coming from 2896 to 2915 feet. This production probably is also coming from the Calvin.

Fish Pool

The erratic nature of Wapanucka limestone production in the Fish pool was further shown by The Texas Company's Eliza 3, CSW NW SE Section 19-7n-8e, which topped the Wapanucka at 3065 feet and recorded that pay from 3099 to 3109 feet. After being shot with five and then 20 quarts it swabbed 40 barrels in four hours and was being cleaned out when last reported. The company's Eliza 2, east offset to Eliza 3, was recently completed as a 3070 barrels well, the northeast diagonal offset is a 670-barrel well, and the southeast diagonal a 1400-barrel well. All are producing from practically the same depth in a sandy phase of the Wapanucka which apparently runs more to lime in local spots.

Eastern Payne County

Amerada Petroleum Corporation et al's Penny 1-A, CSW NW SE Section 25-19n-4e, slightly over 1½ miles east of the old Ingalls pool in eastern Payne County, had Bartlesville sand at 3269 to 3275 feet. After rigging up standard tools and drilling the plug, the hole was bailed down to within 200 feet of the bottom where a small show of gas was had. Drilling was continued and at 3301 to 3305 feet the gas show had increased to about 1½ million cubic feet. Mississippi lime was reported from 3538 to 3550 feet but the gas had shown no increase.

Oklahoma Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
CREEK COUNTY—		
H. U. Bartlett Heirs, Bartlett 1, se ne se 18-18-9e	*	2510
T. E. Mann, Smith 1-A, ne se se 18-19-9e	100	2251
Standard of Kansas, Baugh 2, nw nw ne 22-19-9e	40	2770
Gled Oil Co., Boyd 2, se ne nw 29-19-9e	175	2169
JEFFERSON COUNTY—		
O. V. Beck, Seay 7, nw sw se 34-6s-5w	300	1589
MUSKOGEE COUNTY—		
Robinson Oil Co., London 4, nw ne sw 17-13-16e	25	2120
Jolly, Spaulding 4, se ne ne 8-15-18e	¶5	1591
Mack Drlg. Co., Richards 5, swc ne nw 34-16-15e	50	1197
OKFUSKEE COUNTY—		
Stekoll, Likowski 1-A, csl n½ ne sw 23-11-11e	25	1660
OKLAHOMA COUNTY—		
Slick-Urschel, Classen-Edwards 9, nw sw sw 3-11-3w (4 hrs)	304	6497
Anderson-Prichard, Kerr-Bailey 1, ne nw se 22-11-3w	¶22-1399	6565
Denver P&R, Johnson 1, sw nw ne 22-11-3w	¶7-1778	6548
Wilcox et al, Senapoulo 1, sw ne se 34-12-3w	¶100-3318	6479
OKMULGEE COUNTY—		
J. H. Rebold, Charles 1-A, ne sw sw 28-13-11e	10	1950
Castleman, Thomas 6, sw sw se 23-13-14e	75	1012
Hazlett et al, Cornelius 1-A, se ne se 23-15-12e	20	2268
PONTOTOC COUNTY—		
Superior Oil Corp., Mauldin 7, swc ne nw 32-5-5e (owdd)	130	2514
Fleetborn Oil Co., Brown 2, ne se ne 28-5-6e	*	1750
POTTAWATOMIE COUNTY—		
Magnolia, Davis 2, ne c 15-7-4e (owdd)	385	4138
STEPHENS COUNTY—		
Geo. Pace, Watkins 13, ne ne se 21-2s-7w	150	1738
Curtis Oil, Dare 4, ne ne se 2-2s-8w	25	1443
TULSA COUNTY—		
Browder et al, McIntosh 2, nw nw nw 4-17-14e	*	1553
WAGONER COUNTY—		
Bryan, Gregory 1, se ne nw 19-17-17e	*	1268

New Operations

CREEK COUNTY—Magnolia, Mickey 4, ne se ne 4-16-7e, (owdd). Ford Production Co., Littlehead 3, cwl sw se 17-17-10e. Curtis Oil, Self 1-A, csl n½ sw nw 22-17-10e. Bert Swift, Smith 1-A, csl n½ sw nw 16-18-9e. Johnson Oil & Ref. Murrell 1, 8-19-9e. Johnson O&R Rentie 1, se nw se 32-19-9e.

OKFUSKEE COUNTY—Stekoll, Likowski 2-A, cnl ne sw 23-11-11e. A. J. Pettis, Taylor 1, se se ne 1-17-13e, a twin.

PITTSBURG COUNTY—Nelson & Flynn, Anderson 1, nec sw 12-7n-13e.

PONTOTOC COUNTY — Mid-Continent Pet., McLane 1, se c nw 22-5-6e.

POTTAWATOMIE COUNTY — Watchorn O&G, Archer 1, nwc sw 24-6-3e. Gypsy et al, Masters 1, swc ne 25-6-4e.

CADDO COUNTY—Mid-Kansas, Jones 2, se c ne se 31-6-9w.

OKLAHOMA COUNTY — R. A. Wallace, Jones 1, nw ne ne 3-11-8w. W. W. Milan et al, Garvin 1, ne sw nw 10-11-3w.

STEPHENS COUNTY—McAlester, Dare 1, swc nw 1-2s-8w. Continental Oil, Dare 3, swc se 2-2s-8w.

Wildcat Drilling Report

(Wells shut down not included)

KAY COUNTY—Blubaugh et al, Indian 1, c nw se 30-25-1e, sand 2556-63 ft, est 10M gas.

ELLIS COUNTY—L. C. Hivick et al, Roper 1, c se nw 21-20-24w, rog.

NOBLE COUNTY—Wentz Oil Corp., et al, Wolff 1, c se nw 17-20-2w, move in rotary.

BLAINE COUNTY—Watonga Pet., Masters 1, sw nw nw 27-16-11w, dr 277 ft.

LINCOLN COUNTY—Hilton-Phillips, Phillips 1, sw nw 2-14-3e, rip cas 4055-75 ft, 3800 ft fluid, sd.

PITTSBURG COUNTY — Moffett & Hall, Jones 1, c ne nw, 14-8-14e, sand 321-81 ft, so, dr 750 ft.

KIOWA COUNTY—Christian, James 1, ne se, 8-7-18w, dr 1220 ft.

PITTSBURG COUNTY—Nelson & Flynn, Anderson 1, ne sw, 12-7-13e, ru.

GRADY COUNTY — Schoonmaker et al, Slaton 1, nwc 35-4n-7w, sand 1787-1818 ft S. G.; rng 65/8 inch.

PONTOTOC COUNTY—Sunray, Grant 1, c se ne, 11-4-8e, dr 260 ft.

GRADY COUNTY — English Drlg. Co., Heenan-Coe 1, ne se ne, 32-3-7w, sand 2685-94 ft, sd for cas.

PONTOTOC COUNTY — Edna Marie Oil Co., McWhirt 1, ne se, 11-2n-6e, dr 360 ft

COMANCHE COUNTY — Trahan-Wilson, Pruitt 1-a, ne sw se 8-1n-9w, S. O. 1609-20 ft, dr 1620 ft.

MARSHALL COUNTY — J. T. Hogan, Thompson 1, ne nw ne, 26-7s-6e, lcn. Hughes, Ayres 1, ne se 30-7s-7e, sd 325 ft.

STEPHENS COUNTY — Gillette Bros., Cooley 1-A, nw se nw, 17-2s-8w, rig.

Conservation Commission Revises Zwolle Regulations

Shreveport, La.—Increased activity in the Zwolle field has caused regulations enforced by the minerals division of the Louisiana Conservation Commission to be augmented. Dr. J. A. Shaw, director of the minerals division, recently issued a rule requiring all operators to bail casing after drilling of plug to see if the casing seat was properly holding. If a test is drilled through the Zwolle chalk into the Blossom or below it, operators are required to plug back with lead wool. Whenever a test is abandoned it must be cemented before rig is moved off the location. The officials also encourage, though not making it mandatory, that all offsets be the standard distance.

Seek New Order to Clarify Oklahoma City Situation

Oklahoma City.—On July 5 the Oklahoma City pool had passed its second week under rigid inspection of the Oklahoma National Guard and, according to Lt. Col. Cicero Irving Murray who is in charge of enforcement of proration, no irregularities have been found. The military order of June 21 which placed national guardsmen in the field the following day provided that excavations be made around any well or line which might be under suspicion by the enforcing authorities. No report has been made concerning the number of excavations that have been made but apparently little or no digging has been done or the authorities suddenly became less suspicious than they were when the order was written.

Following the lead of state umpire, Ray M. Collins, Col. Murray issued strict orders relating to the removal of so-called waste oil by tank trucks. The order which is very similar to that issued by Collins several weeks ago is as follows:

Control of "Waste" Oil

"All firms or individuals hauling crude oil in tank wagons in the Oklahoma City field are hereby ordered to obtain permits from the military authorities at once.

"Names of firm or individual license tag number and capacity of tank must be furnished at the time of application.

"Application will be made to commanding officer at field military headquarters, located on the Ben Theimer lease.

"All firms or individuals will turn in a daily report to field headquarters, showing date oil was hauled, lease name and well number, number of barrels hauled, and to whom delivered.

"Hauling of oil in tank wagons will not be permitted between the hours of 8:00 p.m. and 6:00 a.m. except in cases of extreme emergency and only on written authority of the commanding officer."

Collins initiated the practice of governing transportation of oil by tank wagons several weeks ago when it was found that considerable amounts of Oklahoma City crude were being picked up from leases and from the streams and hauled directly to small refineries in the area. Charges were made that operators were overflowing tanks and intentionally allowing oil to pass into small streams where it was picked up immediately. Ponds of "waste" oil on the leases were said to be in fact fresh oil which was being accepted by Oklahoma City refiners.

The Oklahoma Corporation Commission hearing which is to be held at Oklahoma City on Monday, July 11, probably will bring out several interesting points since it will involve a general discussion of the proration regulations governing the Oklahoma City pool. It is understood that one group of operators will go before the commission and ask that an entirely new order be written. Since it is not yet clearly understood just what the commission's status is under the military order of June 21, some definite statement may be made between now and July 11 from Governor Murray. One question which must be definitely decided in the next few days is whether or not operators and owner of transportation facilities will be forced to install meters as required by the military order. Strict enforcement of this part of the order would force the installation of probably as many as 1000 meters on or before August 1. In event that it is enforced and that operators and pipe line owners are able to comply by August 1, Oklahoma's 30 national guardsmen will find a difficult task in reading such a large number of meters with a regularity which would prove practical.

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THE INK BOTTLE

KANSAS FIELDS

Quit Drilling on Kansas Outposts. Oxford Okays Drilling in City Limits. Hunton Delivers Third Producer in State.

FLOYD SWINDELL, *Staff Representative, Tulsa, Oklahoma*

Third Kansas Hunton Lime Well Is a Producer

Wichita, Kansas.—Mid-Kansas Oil & Gas Company's Doerkson 1, SE SE NE Section 19-22s-3w, third Hunton lime producer in the state, flowed 217 barrels the first 55 minutes and 402½ barrels in two hours the next day from 3475 to 3488 feet, the total depth. It is one-half mile west of Frank Hollow et al's Fee 1, discovery well which was completed February 10, 1932, flowing 120 barrels from 3507 to 3517 feet.

Barton-Ellsworth Arch Area

Aylward et al's Stratman 5, CSW SE SE, Section 1-17s-10w, located on the discovery lease in the Stratman pool in southwestern Ellsworth County, pumped 1099 barrels the first 12 hours giving it a potential of 2198 barrels. Production is coming from Arbuckle "Siliceous" limestone at 3238 to 3249 feet.

Oxford Repeals Restriction To Permit Deep Drilling

Oxford, Kansas.—Citizens of the town of Oxford brought to an end the famous townlot drilling ordinance which was passed in 1927 when the Oxford townsite development was getting under way. Recently by a vote of 223 to 121 it was decided to remove the ordinance from the books.

When the townsite development was started in 1927, Shell Petroleum Corporation owned the leases on all but a few fractional interests or lots which were owned by four individuals. The company's campaign called for the drilling of regular locations but this plan was upset when Roy Ramsey of El Dorado, E. B. Shawver of Wichita, Eben Pyle of Wichita, and Will Stanley of Wichita, announced that they would drill on city lots. Shell Petroleum Corporation was successful in getting the Oxford city council to pass an ordinance limiting drilling to one well to a block. Expensive litigation followed and the supreme court, on March 25, 1929, held the ordinance valid. Since that time this decision has been cited in a number of instances when city authorities have attempted drilling control and the decision has been numbered among the important rulings dealing with the oil industry.

Deeper drilling in the nearby Winfield townsite has resulted in several nice completions in the lower horizons. Since the Oxford townsite had been completely drilled under the one well to each block ordinance it was not possible to test the lower horizons without drilling deeper in an old producer or removing the ordinance from the books. No test has ever gone to the Mississippi lime under the Oxford structure but it is understood that the recent action was taken to make possible a deep test by McCammon and Higgins, Wichita oil operators who formerly were citizens of Oxford.

Interesting Outpost Wildcat Tests Finally Abandoned

Wichita, Kansas.—The past week saw two interesting Kansas wildcat tests come to an end when operators announced abandonment. James Durham et al's Weaver 1, SW SW SW Section 3-2s-35w, the most northwesterly test ever drilled in Kansas, was abandoned at 3929 feet after having been shut down for a number of months. The test, an interest in which is owned by Danciger Oil & Refining Company, was located in an area of which little is known geologically. According to a geological report made to one of the owners of the test, Niobrara chalk of Cretaceous age was encountered at about 1400 feet. A definite report on the formation encountered is not available but it is understood that the bit did not penetrate formations older than lower Cretaceous.

The second abandonment was Severs et al's Livingood 1, SE NW Section 13-13s-2e, approximately two miles east of the town of Abilene in north central Dickinson County and about 25 miles from the nearest production. The test was abandoned at 4752 feet after having encountered the chat at 2205 feet, base of the Mississippi lime at 2315 feet, Hunton lime from 2580 to 2765 feet, Viola lime from 2848 to 2973 feet, Wilcox sand from 2980 to 3059 feet, and Arbuckle "Siliceous" lime from 3060 feet to the total depth. No other test in Kansas has penetrated so great a thickness of Arbuckle and available records do not show that the formation has heretofore been explored to that depth above its top by any other test in the Mid-Continent. In the type section in Southern Oklahoma the Arbuckle lime ranges in thickness from zero to more than 8000 feet.

Ritz-Decker-Garrett Area Production Allowance Cut

Wichita, Kansas.—Due to reductions in nominations of purchasing companies in the Ritz-Decker-Garrett area, daily allowable production from all Viola limestone wells was reduced from 6.3 to 6 per cent of potential production and on all Chat wells from 8 to 5 per cent, effective at 7:00 a.m., July 1. All Viola lime wells receiving a minimum allowance of 50 barrels daily in lieu of potential and all chat wells receiving 100 barrels daily, are exempted from the new order.

Kansas Field Developments

Completions

BUTLER COUNTY—		
Flint Hills Oil Co., Martin 4, se c nw sw 27-28-4e	¶¼	1518
COWLEY COUNTY—		
Roth et al, Perdy 3, se c ne se 31-31-8e	15	1998
Trees et al, Armstrong 1, ne c sw sw 1-32-6e	¶¼	2517
DICKINSON COUNTY—		
Severs et al, 1, se c nw 13-13-2e..	*	4752
GREENWOOD COUNTY—		
Theta Oil, Schneider 25, se sw nw 10-23-13e	40	1635
HARVEY COUNTY—		
F. H. Hollow, Church Lot 1, sw sw nw 20-22-3w (owdd) 1307		3512
W. C. McBride, Inc., Friesen 1, nw nw sw 20-22-3w .....2 hrs.	354	3513
Stanolind-Amerada, Fraese 1, swc nw 20-22-3w .....14 hrs.	968	3496
McPHERSON COUNTY—		
E. B. Shawver et al, Lively 2, swc nw nw 21-19-1w	¶11	2985
Barnsdall-Texas, Aelmore 1, se c ne ne 22-19-2w	*	3522
RAWLINS COUNTY—		
Liggett et al, 1, swc 3-2s-35w.....	*	3925
RICE COUNTY—		
Empire et al, Heckel 1, swc 18-20-9w	816	3338
STAFFORD COUNTY—		
Midwest Refg. Co., Brock 6, nwc 6-23-11w	820	3570

New Operations

GREENWOOD COUNTY—Ackman et al, Pavemire 5, se c 15-22-13e. Simmons et al, Kolasser 1, ne c 1-23-11e. Gore-Phillips, Beal 6, nwc se ne 28-23-11e. Harwood Oil, Carson 5, swc ne nw 33-23-11e. Polhamus-Smith, Blanchot 1, se c 5-24-12e.

McPHERSON COUNTY—Shell, Johnson 3, ne c sw 35-19-3w. Mid-Kansas, Bridgens 2, swc nw sw 2-20-3w. Western Gasoline, Neufeldt 1, sw se ne 21-21-3w.

MORRIS COUNTY—Cress et al, Peterson 2, csl ne sw 33-16-7e. Cress et al, Barnes 1, csl se sw 34-16-7e.

RENO COUNTY—Olson, Sabine 2, nwc se sw 12-23-4w.

SEDGWICK COUNTY—Kiskaddon, Schoat 1, nwc ne ne 24-27-1e, (owdd). Schweiter, Fee 1, se se se 27-27-1e.

EAST CENTRAL TEXAS

Resist Reduction in Van Prorated Allowable; New Locations Show Substantial Decline. Wells All Served.

H. H. KING, *Staff Representative, Fort Worth, Texas*

Two Rusk County Wells Fail To Flow on Initial Test

TYLER, JULY 8.

New locations in the East Texas field registered a substantial decrease for the week ending July 8 and it is now apparent that the possibility of further reductions in the allowable per well is having a discouraging influence on new field work. Locations for the week totaled 115, 15 fewer than the previous week which experienced a drop of 13. A few of the larger companies, which have been aggressive in drilling, have not covered the bulk of the scheduled locations on their leases and are stacking their rotaries or moving them to other areas that have been neglected during the prolonged drilling rush in East Texas.

Two east side wells in north Rusk County failed to flow upon preliminary production tests. Shell Petroleum Corporation's T. Wells 2-A, located in northeast corner of a 26-acre lease, Hy Hobson Survey, is to be given an injection of gas from a nearby well after failing to flow via a string of 1 and 1¼-inch taper tubing at a total depth of 3746 feet. This well is virtually surrounded by producers, but encountered tight sand conditions. J. E. Crosbie, Inc., et al's E. Camp 1, located on west end of 51-acre lease, J. C. Barnett Survey and a south offset to Solar Exploration Company's midget well, failed to respond with oil in commercial quantities after shooting with 20 quarts at 3510-17 feet, with a total depth of 3598 feet. This disappointment has led to Magnolia Petroleum Company holding up a scheduled test on the west.

Sinclair Prairie Oil Company's J. E. Lawther 9, an east side well in the northeast Kilgore area, would not flow after logging broken sand at 3550-75 feet, with shale continuing to 3593 feet, and will probably be standardized for pumping along with several other small wells on this 317-acre lease. Lawther 9 swabbed 10 barrels of oil per hour on initial test. It is on the west edge of the M. Garrett Survey.

Appearance of brackish water in Eugene Constantin and Elzey Drilling Company's Deason 1 at the conclusion of a prolonged flow test, which was permitted under a federal court order, has been discontinued in importance. This well is located in the southeast part of the J. Ximines Survey, and on the east edge of the Joiner area, having a sub-sea depth of 3242 feet. The well failed to flow more than 1610 barrels daily on open flow tests. Under the court order it would have been permitted to produce a total of 4600 barrels in running the scale of various hourly flow rates over a 50-hour period, but the well could only make about 2000 barrels of oil within the prescribed period. It is believed that the water that appeared in this well was due to seepage from above, or drilling fluid left in the sand upon completion. Nine wells have been given these open flow tests, and with few exceptions the production has been sold at 50 cents per barrel.

Property sales in the East Texas field have been less frequent within the past month, with a comparatively few structurally high leases on the block. The general practice of the major companies to turn edge leases to independents for oil payments or over-riding royalty, continues at a brisk pace. Shell Petroleum Corporation has been the most aggressive in farming out leases, and now has approximately 50 wells on sub-leased tracts that are paying over-riding royalty. The latter turned a portion of its M. H. Bivins 120-acre "B" lease, located on north end of W. P. Chism Survey, Gregg County, to L. C. Collins et al, who are starting three tests in order to catch up with offsets. John E. Mabee, Inc., has been awarded Shell Petroleum Corporation's M. T. Cole 120-acre lease, T. Johnson Survey, Gregg County, and more than a half dozen offsets are already in store for the former, who are paying 5/16 over-riding royalty for the lease. J. J. Deaner et al of Tyler originally sub-leased the Cole tract on the same over-riding basis.

Gulf Production Company has assigned its G. H. Morris lease, located on east end of the W. R. Cooke Survey, and in north Rusk County, to V. Hampton and others for $50,000, payable from one fourth of the first production. This lease has one dry hole, while the producer in the southwest corner has a sub-sea total depth of 3319 feet. Close proximity of the water table to this lease was responsible for the above major company turning the property.

Defer Van Field Proration Hearing for More Data

Austin, Texas, July 8.—Exclusion of the Van field from the group of fields to be considered for reductions in proration allowables at the July 11 hearing by the Texas Railroad Commission was credited with being due to certain royalty owners in the field having requested more time to collect data and adequate defensive evidence to resist a cut.

Pure Oil Company, major lease owner and producer in the field, is credited with having made preliminary steps toward resisting a cut at Van to the extent of indicating that the company would apply for a restraining order in Federal Court if forced to do so. This company is absorbing about 30,000 barrels of the field's daily output, using about 20,000 barrels in filling the requirements of its refinery at Smiths Bluff, Texas, and the remaining 10,000 barrels is contracted to move to Middlewestern refineries through the Humble-Standard-Okla-Ajax pipe line systems. It is claimed that a loss of a portion of this crude supply would work an undue hardship on the company in view of its established lines not being connected to other areas.

Practically All East Texas Wells Have Line Connection

Dallas, Texas.—Completed oil wells in the East Texas field in need of pipe line connections and market relief were reduced to a minimum as result of a number of purchasing companies giving support to the well connection committee during a joint session held here July 6. Jack G. Pew, Sun Oil Company, head of the committee, announced that connections for 58 wells were pledged, and that tentative promises of relief for 10 additional wells were made by representatives of the crude buyers. Approximately 30 more wells were carried on the committee's list, but no definite assignments could be made by the meeting.

The committee proposes to make a

special effort to locate a market outlet for these remaining unconnected wells in advance of the next semi-monthly meeting, according to Pew. It is planned to provide some relief through an exchange of connections between purchasers.

This change in attitude on the part of purchasers in regard to new lease connections was largely due to the buyers having assurance that the commission will continue to lower the well allowable in the field at 15-day intervals during July and August so as to offset the normal gain in new completions. It is an almost unbroken rule that major buyers in the field will not split a lease connection with another buyer for fear of becoming involved in an over-production investigation. In carrying out such a policy many of the purchasers automatically absorb new wells added to old lease connections, thus accounting for steadily increased crude runs without making new field connections.

Sinclair to Center Texas Operations at Fort Worth

Fort Worth, Texas.—Concentration of the production, lease and geological departments of the Sinclair Prairie Oil Company's operations in Texas and New Mexico at Fort Worth has followed in the wake of the completion of the company's intensive drilling program in East Texas. A gradual shrinkage in field work in East Texas is now taking place on the company's properties, which have approximately 375 producing wells that were drilled within the past 18 months. During this major campaign, operations have been conducted out of a field office at Tyler, with Glenn Harroun, production superintendent in charge. H. Smith Clark, head of the geological department, and Wesley Gish, manager land and lease department, have also moved from Tyler to Fort Worth, where offices are maintained in the Sinclair building.

Sinclair Refining Company located its sales personnel for the southern division several years ago in Fort Worth, and has a refinery department in connection with its Fort Worth plant.

Location of state headquarters for the Sinclair Prairie Pipe Line Company of Texas, representing the former Prairie Pipe Line Company, Pure Oil Pipe Line Company of Texas and the Sinclair-Texas Pipe Line Company, is also to be made in Fort Worth within 30 days. A. D. Sloan is general superintendent of the former, and Tom R. Lott is assistant general superintendent.

Central East Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
JOINER AREA—		
T. C. Adams et al, J. E. Arnold (25-ac) 3	4500	3693
Mills Bennett Prod. Co., E. L. Pinkston (108-ac) 5	7200	3650
Blackwell O&G Co., W. P. Moore (33-ac) 6	7000	3645
Byers et al, F. Cole (8-ac) 1	7500	3759
Combined Oil Interests (Vitek Est.), Eaton (74-ac) 8	9600	3739
East Shore Oil Co., T. Fox (40-ac) 4	8500	3786
Golding-Murchison Oil Co., Cox (16-ac) 2	8000	3740
I. L. Kinney (336-ac) 9	8500	3645
I. L. Kinney (336-ac) 10	1500	3645
Gulf Prod. Co., H. Johnson (101½-ac) 4	7200	3797
G. G. Turner (312-ac) 11	10,500	3738
G. G. Turner (312-ac) 12	8000	3754
John W. Hooser et al, G. W. Eaton 2-B	2500	3760
L. L. Jones (15-ac) 3	7000	3790
Humble O&R Co., J. R. Box (125-ac) 6	9600	3758
J. R. Box (125-ac) 7	9600	3788
J. E. B. Sneed (104-ac) 5	9000	3713
J. W. Turner (104.5-ac) 10	6500	3800
H. L. Hunt Prod. Co., D. Bradford 5-B	500	3684
H. C. Maxwell 7-A	10,000	3784
K. O. T. Oil Co., S. S. Cook 2	7500	3758
McClure-Quintella & McCullough (J. W. Smith, Rec.) J. Cole (6-ac) 1	8000	3740
C. H. McDonald-Friedman & Dorfman, J. H. Stewart (2½-ac) 1	7500	3707
Mid-Kansas O&G Co., C. L. Graham (134-ac) 7	6500	3676
H. L. Griffin (64-ac) 4	1500	3696
W. T. Grissom (320-ac) 5	6200	3654
Joe Mills (44-ac) 5	6500	3759
G. W. Moore (92-ac) 2	5000	3618
J. M. Price (55-ac) 4	6000	3667
M. A. Price (201-ac) 3	8500	3628
Mitcham et al, Joe Lee 1	9600	3784
H. S. Moss & Pete Urschel, Deason 3	2000	3770
Navarro Oil Co., C. Young (30-ac) 2	9000	3695
F. W. Roe-Lucey Pet. Co., B. F. Maxwell (22-ac) 2-B	8000	3714
Sinclair Prairie Oil Co., W. T. Grissom (47-ac) 6	5000	3660
A. S. Jarvis (266-ac) 14-A	7000	3714
A. S. Jarvis (256-ac) 14-C	6500	3712
D. Ledbetter (191-ac) 7	5500	3642
D. Ledbetter (191-ac) 10	7200	3659
D. Ledbetter (191-ac) 11	7000	3618
W. H. McCord, (50-ac) 4-A	1000	3656
Peter Tips (230-ac) 3	11,000	3664
Peter Tips (230-ac) 5	9500	3664
Summitt Drlg. Co., Mayfield-Shell (200-ac) 2	4500	3828
W. L. Stearns et al, Mt. Lidy Negro Lodge (1½-ac) 1	1500	3685
Sun Oil Co., O. W. Knight (264-ac) 10	7200	3629
The Texas Co., First State Bank (160-ac) 7	7200	3743
A. S. Jarvis (81-ac) 8-A	8000	3629
Texas Trading Co., Inc., A. J. Deason (6-ac) 2	4500	3707
KILGORE AREA—		
Arkansas Fuel Oil Co., C. Brown (100-ac) 5	8200	3590
M. B. Hughey-Ross (220-ac) 3	5500	3582
Jim Cloud, Inc., W. F. Neal-Shell (109-ac) 6	10,000	3720
Danciger O&R Co., H. C. McNeely (17-ac) 3	11,000	3649
East Texas Ref. Co., E. Mitchell (15-ac) 2	8000	3601
Gulf Prod. Co., H. C. Alexander (209-ac) 11	7500	3558
H. C. Alexander (209-ac) 12	8000	3556
C. Brown (255-ac) 11	10,000	3507
J. C. Clayborn (20-ac) 1	7200	3630
Griffin Davis, (50-ac) 3	7500	3571
S. Hilburn 27	11,000	3562
H. Sexton (54-ac) 3-A	4200	3687
Humble O&R Co., Henry Sexton (200-ac) 7-B	9000	3680
Jones-O'Brien, Inc., J. Protho (8-ac) 1	8200	3646
M. Protho (9-ac) 1	7500	3668
E. R. Liner, Inc., J. C. Clayborn (15-ac) 1-H	12,000	3705
Louisiana Oil Ref. Corp.-J. I. Roberts, W. C. Griffin (71-ac) 4	8000	3604
W. M. Jernigan (111-ac) 7	8200	3646
Magnolia Pet. Co., Nancy Radford (100-ac) 3	12,000	3642
R. B. Walls (26-ac) 1	10,500	3710
Mission Oil Co., Clayborn (46-ac) 4	7000	3695
Mullendore & Berry, A. Spear (15-ac) 2	11,500	3565
J. F. O'Neil-Wallace & Catlett, E. L. Walker (20-ac) 2	11,000	3554
Selby O&G Co. et al, M. T. Cole (80-ac) 3	8000	3562
Sells Petroleum, Inc., Williams 2	9000	3651
Shell Pet. Corp., N. Jobe (60-ac) 4	11,000	3580
B. F. Laird (54-ac) 1-B	12,000	3624
J. H. Spivey (88-ac) 6	10,000	3732
Sinclair Prairie Oil Co., S. G. Andrews (200-ac) 11	7500	3490
M. T. Cole (666-ac) 26	7000	3596
M. T. Cole (666-ac) 28	6500	3580
M. T. Cole (666-ac) 29	3000	3594
A. A. King (111-ac) 7-B, Tract No. 2	10,500	3472
A. A. King (91-ac) 2-B, Tract No. 3	10,000	3465
A. A. King (91-ac) 3-B, Tract No. 3	8500	3455
A. A. King (147-ac) 7-B, Tract No. 5	6000	3465
J. E. Lawther (317-ac) 9	300	3593
H. R. Smith, Inc., R. Gray 1	9000	3699
Stanolind O&G Co.-Simms Oil Co., E. L. Walker (51-ac) 2-B	9600	3564
Sun Oil Co., M. T. Cole (264-ac) 10	8000	3560
G. Reese (124-ac) 7	7200	3715
M. Strong (50-ac) 5	11,500	3648
The Texas Co., J. M. Dickson (88.4-ac) 5	6300	3622
S. D. Walker (213-ac) 3	7000	3575
Welch & Sandler, R. W. Barnett-Tidal (100-ac) 4	4500	3738
R. L. Wheelock & Collins, Wm. Clayton (72-ac) 5	1500	3553
Winston Oil Co., Paul Jones 7	8200	3723
LONGVIEW AREA—		
Alco Royalty Corp., R. K. Johnson (20-ac) 3	7000	3617
Alma Pet. Corp., C. D. Gay (5½-ac) 2	8200	3689
Amerada Pet. Corp., E. Burnside (100-ac) 6	8000	3563
Arkansas Fuel Oil Co., W. T. Burnside (209-ac) 2	12,000	3490
W. L. Hestland (32-ac) 5	9600	3628
J. C. McKinley (54.7-ac) 3-C	15,000	3615
F. T. Rembert (86-ac) 5	8500	3480
L. Y. Tuttle (62-ac) 5	10,000	3598
Atlantic Oil Prod. Co., S. S. Barton (47-ac) 4	8400	3700
Ethel Burnside (204-ac) 9-A	11,000	3535
W. T. Burnside (231-ac) 9-B	10,500	3518
J. C. Judge (520-ac) 15	14,000	3529
J. C. Judge (520-ac) 19	15,000	3525
J. M. Moore (456-ac) 6	13,000	3527
J. M. Moore (456-ac) 10	10,000	3518
J. M. Moore (456-ac) 13	13,000	3539
J. M. Moore (456-ac) 14	12,000	3526
H. Pritchard (100-ac) 5	15,000	3530
H. Pritchard (100-ac) 6	9600	3525

Company, Well and Location	Initial Production Bbls.	Depth
Atlantic-Sun Oil Co., M. Hays (404-ac) 15	9000	3560
Atlantic-J. K. Wadley, T. W. Lee (110-ac) 5	9600	3647
H. W. Black et al, I. M. Burroughs (30-ac) 2	8000	3702
Jim B. Bond et al, J. H. Alexander-Republic (10-ac) 2	10,000	3564
Byrd & Frost, Inc., G. E. Adams (11.1-ac) 2	9000	3633
California Pet. Corp. of Ven., Mrs. I. Walker (120-ac) 9	7500	3675
Cranfill-Reynolds Co.-Pet. Finance Corp., J. Williams (101-ac) 2	9000	3659
Dean & Adkisson, A. V. Bacle (3½-ac) 1	9600	3670
Delaney & Randall, C. C. Clemmons (22-ac) 2	10,000	3661
East Texas Loan & Inv. Co., Geo. Anderson (12-ac) 3	11,000	3549
East Texas Ref. Co., P. C. Castleberry (40-ac) 3	8500	3609
F. White (96-ac) 5	8000	3606
Empire Gas & Fuel Co., T. W. Lee 5	9000	3562
Export Pet. Corp., Arnold 1, Blk. 16	13,500	3562
Alex Goldsmith et al, Wm. Cobb (7-ac) 1	11,000	3566
Gregg Oil Co., T&P Fee 1-G	8500	3603
Gulf Prod. Co., M. F. Barker (74-ac) 4	9600	3592
J. H. Bozeman (111-ac) 7	9200	3593
M. O. Sheppard (335-ac) 7	9000	3511
M. O. Sheppard (335-ac) 11	9000	3508
H. Hanbury et al, Victory 1	14,000	3643
Humble O&R Co., H. Castleberry (172-ac) 2	7500	3470
J. M. Smith (80-ac) 5	6500	3668
Iowa Payne Oil Co., J. W. Akin (20-ac) 1	9600	3612
Kewanee O&G Co., Fee (168-ac) 8	15,000	3626
J. C. Little et al, Elmira Church (14.3-ac) 3	8500	3611
Maddox Dev. Co., Willie Starr (20-ac) 1	300	3666
Magnolia Pet. Co., R. A. Adkins (100-ac) 10	6500	3720
E. H. Brawley (80-ac) 5	8800	3520
Bobby Manziel et al, J. O'Byrne (3-ac) 1	7200	3702
B. F. Phillips et al, Fee 4	8800	3608
Prince Bros. Drlg. Co., H. M. Williams (37-ac) 3	9000	3634
Red Star Oil Co., W. D. Christian (22.3-ac) 3	14,000	3628
Rio Oil Corp., L. Graves (106-ac) 1	13,500	3666
Roeser-Pendleton, Inc., W. R. Nicholson (75-ac) 3-B	7000	3620
Selby O&G Co., Snavely (361-ac) 6-B	7200	3580
Snavely (361-ac) 12-B	9000	3582
Simms Oil Co.-Frank Buttram, W. R. Nicholson (800-ac) 8	4500	3676
Standard Oil Co. of Kansas, J. W. Fuller (22-ac) 1	6500	3630
Stanolind O&G Co.-Simms Oil Co., Flewellen (374-ac) 11-B	6000	3763
Flewellen (374-ac) 14-B	4000	3676
G. F. Meadows (50-ac) 4	8600	3715
Stanolind-Simms-Continental Oil Co., Flewellen (200-ac) 8-A	8000	3648
Stanolind-Simms-Peachblossom Oil Co., H. Keys (83¾-ac) 6	12,000	3606
Sun Oil Co., J. T. Loden (100-ac) 6	4500	3694
J. Rollins (87-ac) 4	12,000	3665
Twin Oil Co., M. Bonner (148-ac) 1	7000	3655
Washington Oil Corp., Wm. Cobb (33-ac) 2	15,000	3556
J. O. Whittington et al, A. Boyd (13-ac) 2	12,000	3685
Yount-Lee Oil Co., M. Jones (65-ac) 5	9200	3567
J. C. McKinley (63-ac) 4-A	9500	3544
VAN FIELD—		
Pure Oil Co., W. F. Swain (40-ac) 6	11,000	2961

Wildcat Drilling Report

(Wells shut down not included)

ANDERSON COUNTY — W. H. "Bill" Roeser et al's M. A. Davey 1, P. G. Adams sur, dk. Jack W. Frazier et al's H. L. Hudson (198-ac) 1, M. Rionda sur, lcn.

BOWIE COUNTY—Joe M. Burnham-C. W. Robinson & John Greer's F. O. Weiss (949-ac) 1, J. Dean sur, elev 388 ft., anhydrite 2945-3030 ft, tested salt water 3305 ft. W. S. Langford et al's W. W. Whybark (100-ac) 1, J. H. Dyer sur, fsh 1935 ft.

CASS COUNTY—Lapan-Lovejoy et al's S. A. Orr (320-ac) 1, G. W. Morris sur, dk.

CHEROKEE COUNTY—Bridges & Chandler et al's Berryman (300-ac) 1, H. Kimble-Dill sur, sd 1000 ft. W. N. Hamilton et al's Dr. P. E. Jones 1, J. D. Hamilton sur, materials. Wm. A. Stone et al's Mrs. J. I. Perkins (200-ac) 1, Thos. Stanford sur, sd 2700 ft. Wilson-Stubbs Oil Corp.'s M. F. Ragsdale (53-ac) 1, J. P. Wolfin sur, dr 2100 ft.

DELTA COUNTY—C. N. Joiner Pet. Corp. et al's J. A. Blackwell 1, H. Dunnetella sur, dr 2345 ft. J. O. Wheeler-Neuville-Yarbo et al (was Commercial Oil Dev. Co.'s) Ablovich 1, E. Chick sur, elev 507 ft, Austin chalk 1885-95 ft, sd 3733 ft.

ELLIS COUNTY—Armstrong Bros. et al's Cook (56-ac) 1, S. Frederick sur, sd 215 ft; Reeves 1, Larkin Newton sur, sd 300 ft; J. T. Winn 1, E. Melton sur, sd 1435 ft. Carl Brooks et al's Anderson (3900-ac) 1, E. C. Branch sur, lcn.

FRANKLIN COUNTY—T. E. Mayberry et al's M. L. Edwards 1, G. A. Miller sur, dk. J. F. Mills-McGee & Harper's L. S. Harper (118-ac) 1, W. N. Dawson sur, fsh 3250 ft.

HENDERSON COUNTY—B. L. Green et al (was J. M. Rogers') M. H. Gossett (103-ac) 1, L. D. Stover sur A-87, elev 341 ft, top Taylor lime 1450 ft, top Austin chalk 2347 ft, sd in chalk 2477 ft.

LAMAR COUNTY—Doyle & Jondreau's Joe Horn (178-ac) 1, R. P. Mayo sur, sd 2905 ft; L. Martin (132-ac) 1, Joseph Deck sur, sd 2445 ft.

LEON COUNTY—Allday & Schuffler's W. R. Thompson 1, Nathaniel M. Allen sur, lcn. Leon County Oil Co. (Claude Kavanaugh's) John Morris (200-ac) 1-A, A. F. McWhorter sur, changing rotary, td 2539 ft.

LIMESTONE COUNTY—C. M. Joiner Pet. Corp. & Miller Drlg. Co.'s W. Stephenson (54-ac) 1, Geo. Gentry sur, sd 1800 ft.

MORRIS COUNTY — Buchanan-Burkhalter et al's Staggers (65-ac) 1, Forbes & Nelson sur, elev 370 ft, hard pecan chalk 2526-3020 ft, base broken pecan 3095 ft, claim Austin chalk 3483-3506 ft, changing rig, td 3554 ft. Harris Drlg. Co.-C. M. Joiner Pet. Corp.'s C. D. Brown 1, lcn. W. L. Murrell-Geo. L. Pace et al's Walcott-Lott (577-ac) 1, D. A. Russell sur, sp and sd.

RED RIVER COUNTY—L. G. Priest et al's G. W. Ware (1016-ac) 1, J. Burkham sur, elev. 448 ft, sd 380 ft.

RAINS COUNTY—Lone Star Synd. (C. H. Bayless') Owenby (160-ac) 1, J. Alexander sur, elev 461 ft, top Midway 1130 ft, top Pecan chalk 1996 or 2043 ft, Austin 3468-3800 ft, (dd from 4036 ft) dr shale 4355 ft.

RUSK COUNTY—T. E. Castle et al (was E. O. Butler's) R. H. Gary (50-ac) 1, J. Latham sur, (Trinity sand test) sd 1875 ft. G. A. Hathaway (was Laster & Miller's) Gray 1, Jas. McClain sur, elev 315 ft, Pecan chalk 2180-2537 ft, top Austin chalk 2980 ft, claim show oil 3150-80 ft, sd in Georgetown lime 3196-3365 ft, td 3519 ft, tested water and ripping pipe.

UPSHUR COUNTY—Maddox Dev. Co.'s W. Starr (20-ac) 1, Chas. Cooper sur, elev 326 ft, Pecan chalk 2363-2925 ft, Austin chalk 3595-3651 ft, flow 10 bbls oil 15 min. 1¼-inch choke from sand 3663-66 ft and quit.

VAN ZANDT COUNTY—Daisy O&G Co.'s Mrs. C. A. Browning (100-ac) 1, J. P. Tackett sur, dr 565 ft. C. M. Powell et al's W. E. Price (3¾-ac) 1, John Walling sur, lcn.

WOOD COUNTY—Talko Pet. Corp.'s C. S. Ross (86-ac) 1, F. L. Smith sur, top Pecan 2892 ft, cem 6⅝ inch cas 3135 ft, td 3158 ft. Wood County O&G Co.'s Guy Davis 1, John R. Clute sur, dr 2055 ft, F. H. Zeigen-DeGenther et al's M. L. McClain (66-ac) 1, Sam Brooks sur, dk.

East Texas Border Counties

Wildcat Drilling Report

(Wells shut down not included)

HARRISON COUNTY—Great Eastern Oil Co., W. L. Rudd 1, Wm. Steele sur (200-ac) lcn.

MARION COUNTY—H. M. Harrold, Hussey 1, Chas. Lockhart sur, top Taylor 1850 ft, base AC 2371 ft, arr abn, td 2810 ft shale.

PANOLA COUNTY—United Prod. Corp., L. Werner 12, B. C. Jordan sur, old well dr deeper to upper Trinity (4500-4700 ft) dr 2985 ft.

SHELBY COUNTY—Prairie Creek Crude Co., Ellington 1, J. Burleson sur, sd 505 ft, repr rig. General Minerals Corp., junked old hole with hung ds at 2745 ft, skid over for new hole. Wray & Dunbar, Hayden 1, D. T. F. Yordt sur, fsh ds 2032 ft chalk. Sedberry et al, Pickering 1, Jane Stoddard sur, dr chalk 1650 ft.

A gang of oil country salesmen out to get Business at Conroe, Texas, Gulf Coast's newest field. Left to right: W. H. Dobbins, Texas Iron Works; D. W. Elliott, Thrift Corporation; Paul T. Putnam, special field representative for Cameron Iron Works and Gearench Manufacturing Company; Bill Sanders and W. S. Shaw, T. T. Word Supply Company; Jack Bannister, sales manager for Gulf Coast Machine & Supply Company; and A. B. Smith, Oil Center Tool Company.

special effort to locate a market outlet for these remaining unconnected wells in advance of the next semi-monthly meeting, according to Pew. It is planned to provide some relief through an exchange of connections between purchasers.

This change in attitude on the part of purchasers in regard to new lease connections was largely due to the buyers having assurance that the commission will continue to lower the well allowable in the field at 15-day intervals during July and August so as to offset the normal gain in new completions. It is an almost unbroken rule that major buyers in the field will not split a lease connection with another buyer for fear of becoming involved in an over-production investigation. In carrying out such a policy many of the purchasers automatically absorb new wells added to old lease connections, thus accounting for steadily increased crude runs without making new field connections.

Sinclair to Center Texas Operations at Fort Worth

Fort Worth, Texas.—Concentration of the production, lease and geological departments of the Sinclair Prairie Oil Company's operations in Texas and New Mexico at Fort Worth has followed in the wake of the completion of the company's intensive drilling program in East Texas. A gradual shrinkage in field work in East Texas is now taking place on the company's properties, which have approximately 375 producing wells that were drilled within the past 18 months. During this major campaign, operations have been conducted out of a field office at Tyler, with Glenn Harroun, production superintendent in charge. H. Smith Clark, head of the geological department, and Wesley Gish, manager land and lease department, have also moved from Tyler to Fort Worth, where offices are maintained in the Sinclair building.

Sinclair Refining Company located its sales personnel for the southern division several years ago in Fort Worth, and has a refinery department in connection with its Fort Worth plant.

Location of state headquarters for the Sinclair Prairie Pipe Line Company of Texas, representing the former Prairie Pipe Line Company, Pure Oil Pipe Line Company of Texas and the Sinclair-Texas Pipe Line Company, is also to be made in Fort Worth within 30 days. A. D. Sloan is general superintendent of the former, and Tom R. Lott is assistant general superintendent.

Central East Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
JOINER AREA—		
T. C. Adams et al, J. E. Arnold (25-ac) 3	4500	3693
Mills Bennett Prod. Co., E. L. Pinkston (108-ac) 5	7200	3650
Blackwell O&G Co., W. P. Moore (33-ac) 6	7000	3645
Byers et al, F. Cole (8-ac) 1	7500	3759
Combined Oil Interests (Vitek Est.), Eaton (74-ac) 8	9600	3739
East Shore Oil Co., T. Fox (40-ac) 4	8500	3786
Golding-Murchison Oil Co., Cox (16-ac) 2	8000	3740
I. L. Kinney (336-ac) 9	8500	3645
I. L. Kinney (336-ac) 10	1500	3645
Gulf Prod. Co., H. Johnson (101½-ac) 4	7200	3797
G. G. Turner (312-ac) 11	10,500	3738
G. G. Turner (312-ac) 12	8000	3754
John W. Hooser et al, G. W. Eaton 2-B	2500	3760
L. L. Jones (15-ac) 3	7000	3790
Humble O&R Co., J. R. Box (125-ac) 6	9600	3758
J. R. Box (125-ac) 7	9600	3788
J. E. B. Sneed (104-ac) 5	9000	3713
J. W. Turner (104.5-ac) 10	6500	3800
H. L. Hunt Prod. Co., D. Bradford 5-B	500	3684
H. C. Maxwell 7-A	10,000	3784
K. O. T. Oil Co., S. S. Cook 2	7500	3758
McClure-Quintella & McCullough (J. W. Smith, Rec.) J. Cole (6-ac) 1	8000	3740
C. H. McDonald-Friedman & Dorfman, J. H. Stewart (2½-ac) 1	7500	3707
Mid-Kansas O&G Co., C. L. Graham (134-ac) 7	6500	3676
H. L. Griffin (64-ac) 4	1500	3696
W. T. Grissom (320-ac) 5	6200	3654
Joe Mills (44-ac) 5	6500	3759
G. W. Moore (92-ac) 2	5000	3618
J. M. Price (55-ac) 4	6000	3667
M. A. Price (201-ac) 3	8500	3628
Mitcham et al, Joe Lee 1	9600	3784
H. S. Moss & Pete Urschel, Deason 3	2000	3770
Navarro Oil Co., C. Young (30-ac) 2	9000	3695
F. W. Roe-Lucey Pet. Co., B. F. Maxwell (22-ac) 2-B	8000	3714
Sinclair Prairie Oil Co., W. T. Grissom (47-ac) 6	5000	3660
A. S. Jarvis (266-ac) 14-A	7000	3714
A. S. Jarvis (256-ac) 14-C	6500	3712
D. Ledbetter (191-ac) 7	5500	3642
D. Ledbetter (191-ac) 10	7200	3659
D. Ledbetter (191-ac) 11	7000	3618
W. H. McCord, (50-ac) 4-A	1000	3656
Peter Tips (230-ac) 3	11,000	3664
Peter Tips (230-ac) 5	9500	3664
Summitt Drlg. Co., Mayfield-Shell (200-ac) 2	4500	3828
W. L. Stearns et al, Mt. Lidy Negro Lodge (1½-ac) 1	1500	3685
Sun Oil Co., O. W. Knight (264-ac) 10	7200	3629
The Texas Co., First State Bank (160-ac) 7	7200	3743
A. S. Jarvis (81-ac) 8-A	8000	3629
Texas Trading Co., Inc., A. J. Deason (6-ac) 2	4500	3707
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Arkansas Fuel Oil Co., C. Brown (100-ac) 5	8200	3590
M. B. Hughey-Ross (220-ac) 3	5500	3582
Jim Cloud, Inc., W. F. Neal-Shell (109-ac) 6	10,000	3720
Danciger O&R Co., H. C. McNeely (17-ac) 3	11,000	3649
East Texas Ref. Co., E. Mitchell (15-ac) 2	8000	3601
Gulf Prod. Co., H. C. Alexander (209-ac) 11	7500	3558
H. C. Alexander (209-ac) 12	8000	3556
C. Brown (255-ac) 11	10,000	3507
J. C. Clayborn (20-ac) 1	7200	3630
Griffin Davis, (50-ac) 3	7500	3571
S. Hilburn 27	11,000	3562
H. Sexton (54-ac) 3-A	4200	3687
Humble O&R Co., Henry Sexton (200-ac) 7-B	9000	3680
Jones-O'Brien, Inc., J. Protho (8-ac) 1	8200	3646
M. Protho (9-ac) 1	7500	3668
E. R. Liner, Inc., J. C. Clayborn (15-ac) 1-H	12,000	3705
Louisiana Oil Ref. Corp.-J. I. Roberts, W. C. Griffin (71-ac) 4	8000	3604
W. M. Jernigan (111-ac) 7	8200	3646
Magnolia Pet. Co., Nancy Radford (100-ac) 3	12,000	3642
R. B. Walls (26-ac) 1	10,500	3710
Mission Oil Co., Clayborn (46-ac) 4	7000	3695
Mullendore & Berry, A. Spear (15-ac) 2	11,500	3565
J. F. O'Neil-Wallace & Catlett, E. L. Walker (20-ac) 2	11,000	3554
Selby O&G Co. et al, M. T. Cole (80-ac) 3	8000	3562
Sells Petroleum, Inc., Williams 2	9000	3651
Shell Pet. Corp., N. Jobe (60-ac) 4	11,000	3580
B. F. Laird (54-ac) 1-B	12,000	3624
J. H. Spivey (88-ac) 6	10,000	3732
Sinclair Prairie Oil Co., S. G. Andrews (200-ac) 11	7500	3490
M. T. Cole (666-ac) 26	7000	3596
M. T. Cole (666-ac) 28	6500	3580
M. T. Cole (666-ac) 29	3000	3594
A. A. King (111-ac) 7-B, Tract No. 2	10,500	3472
A. A. King (91-ac) 2-B, Tract No. 3	10,000	3465
A. A. King (91-ac) 3-B, Tract No. 3	8500	3455
A. A. King (147-ac) 7-B, Tract No. 5	6000	3465
J. E. Lawther (317-ac) 9	300	3593
H. R. Smith, Inc., R. Gray 1	9000	3699
Stanolind O&G Co.-Simms Oil Co., E. L. Walker (51-ac) 2-B	9600	3564
Sun Oil Co., M. T. Cole (264-ac) 10	8000	3560
G. Reese (124-ac) 7	7200	3715
M. Strong (50-ac) 5	11,500	3648
The Texas Co., J. M. Dickson (88.4-ac) 5	6500	3622
S. D. Walker (213-ac) 3	7000	3575
Welch & Sandler, R. W. Barnett-Tidal (100-ac) 4	4500	3738
R. L. Wheelock & Collins, Wm. Clayton (72-ac) 5	1500	3553
Winston Oil Co., Paul Jones 7	8200	3723
LONGVIEW AREA—		
Alco Royalty Corp., R. K. Johnson (20-ac) 3	7000	3617
Alma Pet. Corp., C. D. Gay (5½-ac) 2	8200	3689
Amerada Pet. Corp., E. Burnside (100-ac) 6	8000	3563
Arkansas Fuel Oil Co., W. T. Burnside (209-ac) 2	12,000	3490
W. L. Hestland (32-ac) 5	9600	3628
J. C. McKinley (54.7-ac) 3-C	15,000	3615
F. T. Rembert (86-ac) 5	8500	3480
L. Y. Tuttle (62-ac) 5	10,000	3598
Atlantic Oil Prod. Co., S. S. Barton (47-ac) 4	8400	3700
Ethel Burnside (204-ac) 9-A	11,000	3535
W. T. Burnside (231-ac) 9-B	10,500	3518
J. C. Judge (520-ac) 15	14,000	3529
J. C. Judge (520-ac) 19	15,000	3525
J. M. Moore (456-ac) 6	13,000	3527
J. M. Moore (456-ac) 10	10,000	3518
J. M. Moore (456-ac) 13	13,000	3539
J. M. Moore (456-ac) 14	12,000	3526
H. Pritchard (100-ac) 5	15,000	3530
H. Pritchard (100-ac) 6	9600	3525

Company, Well and Location	Initial Production Bbls.	Depth
Atlantic-Sun Oil Co., M. Hays (404-ac) 15	9000	3560
Atlantic-J. K. Wadley, T. W. Lee (110-ac) 5	9600	3647
H. W. Black et al, I. M. Burroughs (30-ac) 2	8000	3702
Jim B. Bond et al, J. H. Alexander-Republic (10-ac) 2	10,000	3564
Byrd & Frost, Inc., G. E. Adams (11.1-ac) 2	9000	3633
California Pet. Corp. of Ven., Mrs. I. Walker (120-ac) 9	7500	3675
Cranfill-Reynolds Co.-Pet. Finance Corp., J. Williams (101-ac) 2	9000	3659
Dean & Adkisson, A. V. Bacle (3½-ac) 1	9600	3670
Delaney & Randall, C. C. Clemmons (22-ac) 2	10,000	3661
East Texas Loan & Inv. Co., Geo. Anderson (12-ac) 3	11,000	3549
East Texas Ref. Co., P. C. Castleberry (40-ac) 3	8500	3609
F. White (96-ac) 5	8000	3606
Empire Gas & Fuel Co., T. W. Lee 5	9000	3562
Export Pet. Corp., Arnold 1, Blk. 16	13,500	3562
Alex Goldsmith et al, Wm. Cobb (7-ac) 1	11,000	3566
Gregg Oil Co., T&P Fee 1-G	8500	3603
Gulf Prod. Co., M. F. Barker (74-ac) 4	9600	3592
J. H. Bozeman (111-ac) 7	9200	3593
M. O. Sheppard (335-ac) 7	9000	3511
M. O. Sheppard (335-ac) 11	9000	3508
H. Hanbury et al, Victory 1	14,000	3643
Humble O&R Co., H. Castleberry (172-ac) 2	7500	3470
J. M. Smith (80-ac) 5	6500	3668
Iowa Payne Oil Co., J. W. Akin (20-ac) 1	9600	3612
Kewanee O&G Co., Fee (168-ac) 8	15,000	3626
J. C. Little et al, Elmira Church (14.3-ac) 3	8500	3611
Maddox Dev. Co., Willie Starr (20-ac) 1	300	3666
Magnolia Pet. Co., R. A. Adkins (100-ac) 10	6500	3720
E. H. Brawley (80-ac) 5	8800	3520
Bobby Manziel et al, J. O'Byrne (3-ac) 1	7200	3702
B. F. Phillips et al, Fee 4	8800	3608
Prince Bros. Drlg. Co., H. M. Williams (37-ac) 3	9000	3634
Red Star Oil Co., W. D. Christian (22.3-ac) 3	14,000	3628
Rio Oil Corp., L. Graves (106-ac) 1	13,500	3666
Roeser-Pendleton, Inc., W. R. Nicholson (75-ac) 3-B	7000	3620
Selby O&G Co., Snavely (361-ac) 6-B	7200	3580
Snavely (361-ac) 12-B	9000	3582
Simms Oil Co.-Frank Buttram, W. R. Nicholson (800-ac) 8	4500	3676
Standard Oil Co. of Kansas, J. W. Fuller (22-ac) 1	6500	3630
Stanolind O&G Co.-Simms Oil Co., Flewellen (374-ac) 11-B	6000	3763
Flewellen (374-ac) 14-B	4000	3676
G. F. Meadows (50-ac) 4	8600	3715
Stanolind-Simms-Continental Oil Co., Flewellen (200-ac) 8-A	8000	3648
Stanolind-Simms-Peachblossom Oil Co., H. Keys (83¾-ac) 6	12,000	3606
Sun Oil Co., J. T. Loden (100-ac) 6	4500	3694
J. Rollins (87-ac) 4	12,000	3665
Twin Oil Co., M. Bonner (148-ac) 1	7000	3655
Washington Oil Corp., Wm. Cobb (33-ac) 2	15,000	3556
J. O. Whittington et al, A. Boyd (13-ac) 2	12,000	3685
Yount-Lee Oil Co., M. Jones (65-ac) 5	9200	3567
J. C. McKinley (63-ac) 4-A	9500	3544
VAN FIELD—		
Pure Oil Co., W. F. Swain (40-ac) 6	11,000	2961

Wildcat Drilling Report

(Wells shut down not included)

ANDERSON COUNTY — W. H. "Bill" Roeser et al's M. A. Davey 1, P. G. Adams sur, dk. Jack W. Frazier et al's H. L. Hudson (198-ac) 1, M. Rionda sur, lcn.

BOWIE COUNTY—Joe M. Burnham-C. W. Robinson & John Greer's F. O. Weiss (949-ac) 1, J. Dean sur, elev 388 ft., anhydrite 2945-3030 ft, tested salt water 3305 ft. W. S. Langford et al's W. W. Whybark (100-ac) 1, J. H. Dyer sur, fsh 1935 ft.

CASS COUNTY—Lapan-Lovejoy et al's S. A. Orr (320-ac) 1, G. W. Morris sur, dk.

CHEROKEE COUNTY—Bridges & Chandler et al's Berryman (300-ac) 1, H. Kimble-Dill sur, sd 1000 ft. W. N. Hamilton et al's Dr. P. E. Jones 1, J. D. Hamilton sur, materials. Wm. A. Stone et al's Mrs. J. I. Perkins (200-ac) 1, Thos. Stanford sur, sd 2700 ft. Wilson-Stubbs Oil Corp.'s M. F. Ragsdale (53-ac) 1, J. P. Wolfin sur, dr 2100 ft.

DELTA COUNTY—C. N. Joiner Pet. Corp. et al's J. A. Blackwell 1, H. Dunnetella sur, dr 2345 ft. J. O. Wheeler-Neuville-Yarbo et al (was Commercial Oil Dev. Co.'s) Ablovich 1, E. Chick sur, elev 507 ft, Austin chalk 1885-95 ft, sd 3733 ft.

ELLIS COUNTY—Armstrong Bros. et al's Cook (56-ac) 1, S. Frederick sur, sd 215 ft; Reeves 1, Larkin Newton sur, sd 300 ft; J. T. Winn 1, E. Melton sur, sd 1435 ft. Carl Brooks et al's Anderson (3900-ac) 1, E. C. Branch sur, lcn.

FRANKLIN COUNTY—T. E. Mayberry et al's M. L. Edwards 1, G. A. Miller sur, dk. J. F. Mills-McGee & Harper's L. S. Harper (118-ac) 1, W. N. Dawson sur, fsh 3250 ft.

HENDERSON COUNTY—B. L. Green et al (was J. M. Rogers') M. H. Gossett (103-ac) 1, L. D. Stover sur A-87, elev 341 ft, top Taylor lime 1450 ft, top Austin chalk 2347 ft, sd in chalk 2477 ft.

LAMAR COUNTY—Doyle & Jondreau's Joe Horn (178-ac) 1, R. P. Mayo sur, sd 2905 ft; L. Martin (132-ac) 1, Joseph Deck sur, sd 2445 ft.

LEON COUNTY—Allday & Schuffler's W. R. Thompson 1, Nathaniel M. Allen sur, lcn. Leon County Oil Co. (Claude Kavanaugh's) John Morris (200-ac) 1-A, A. F. McWhorter sur, changing rotary, td 2539 ft.

LIMESTONE COUNTY—C. M. Joiner Pet. Corp. & Miller Drlg. Co.'s W. Stephenson (54-ac) 1, Geo. Gentry sur, sd 1800 ft.

MORRIS COUNTY — Buchanan-Burkhalter et al's Staggers (65-ac) 1, Forbes & Nelson sur, elev 370 ft, hard pecan chalk 2526-3020 ft, base broken pecan 3095 ft, claim Austin chalk 3483-3506 ft, changing rig, td 3554 ft. Harris Drlg. Co.-C. M. Joiner Pet. Corp.'s C. D. Brown 1, lcn. W. L. Murrell-Geo. L. Pace et al's Walcott-Lott (577-ac) 1, D. A. Russell sur, sp and sd.

RED RIVER COUNTY—L. G. Priest et al's G. W. Ware (1016-ac) 1, J. Burkham sur, elev. 448 ft, sd 380 ft.

RAINS COUNTY—Lone Star Synd. (C. H. Bayless') Owenby (160-ac) 1, J. Alexander sur, elev 461 ft, top Midway 1130 ft, top Pecan chalk 1996 or 2043 ft, Austin 3468-3800 ft, (dd from 4036 ft) dr shale 4355 ft.

RUSK COUNTY—T. E. Castle et al (was E. O. Butler's) R. H. Gary (50-ac) 1, J. Latham sur, (Trinity sand test) sd 1875 ft. G. A. Hathaway (was Laster & Miller's) Gray 1, Jas. McClain sur, elev 315 ft, Pecan chalk 2180-2537 ft, top Austin chalk 2980 ft, claim show oil 3150-80 ft, sd in Georgetown lime 3196-3365 ft, td 3519 ft, tested water and ripping pipe.

UPSHUR COUNTY—Maddox Dev. Co.'s W. Starr (20-ac) 1, Chas. Cooper sur, elev 326 ft, Pecan chalk 2363-2925 ft, Austin chalk 3595-3651 ft, flow 10 bbls oil 15 min. 1¼-inch choke from sand 3663-66 ft and quit.

VAN ZANDT COUNTY—Daisy O&G Co.'s Mrs. C. A. Browning (100-ac) 1, J. P. Tackett sur, dr 565 ft. C. M. Powell et al's W. E. Price (3¾-ac) 1, John Walling sur, lcn.

WOOD COUNTY—Talko Pet. Corp.'s C. S. Ross (86-ac) 1, F. L. Smith sur, top Pecan 2892 ft, cem 6⅝ inch cas 3135 ft, td 3158 ft. Wood County O&G Co.'s Guy Davis 1, John R. Clute sur, dr 2055 ft, F. H. Zeigen-DeGenther et al's M. L. McClain (66-ac) 1, Sam Brooks sur, dk.

East Texas Border Counties

Wildcat Drilling Report

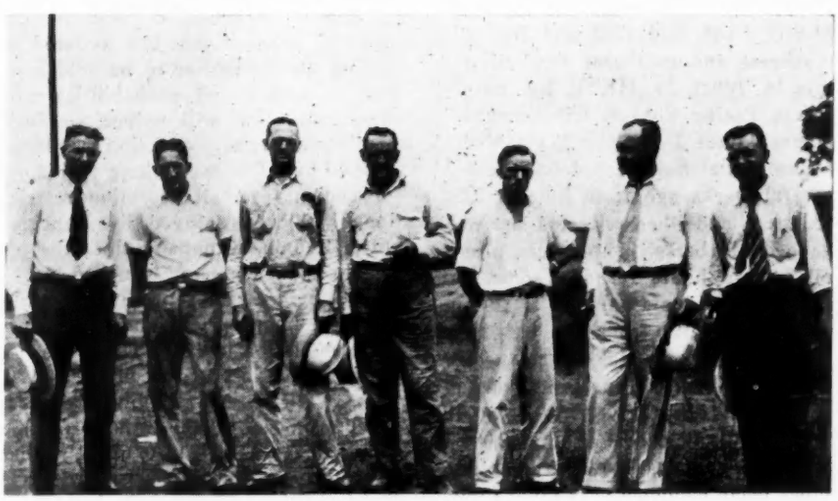
(Wells shut down not included)

HARRISON COUNTY—Great Eastern Oil Co., W. L. Rudd 1, Wm. Steele sur (200-ac) lcn.

MARION COUNTY—H. M. Harrold, Hussey 1, Chas. Lockhart sur, top Taylor 1850 ft, base AC 2371 ft, arr abn, td 2810 ft shale.

PANOLA COUNTY—United Prod. Corp., L. Werner 12, B. C. Jordan sur, old well dr deeper to upper Trinity (4500-4700 ft) dr 2985 ft.

SHELBY COUNTY—Prairie Creek Crude Co., Ellington 1, J. Burleson sur, sd 505 ft, repr rig. General Minerals Corp., junked old hole with hung ds at 2745 ft, skid over for new hole. Wray & Dunbar, Hayden 1, D. T. F. Yordt sur, fsh ds 2032 ft chalk. Sedberry et al, Pickering 1, Jane Stoddard sur, dr chalk 1650 ft.



A gang of oil country salesmen out to get Business at Conroe, Texas, Gulf Coast's newest field. Left to right: W. H. Dobbins, Texas Iron Works; D. W. Elliott, Thrift Corporation; Paul T. Putnam, special field representative for Cameron Iron Works and Gearench Manufacturing Company; Bill Sanders and W. S. Shaw, T. T. Word Supply Company; Jack Bannister, sales manager for Gulf Coast Machine & Supply Company; and A. B. Smith, Oil Center Tool Company.

NORTH and WEST TEXAS

Ward County Activity Stimulated by Successful Oil Completions. Panhandle Wants Proration Adjusted.

H. H. KING, *Staff Representative, Fort Worth, Texas*

Howard-Glasscock Area Extended Half-Mile

San Angelo, Texas.—A half-mile extension for the Howard-Glasscock County district resulted through the drilling of Noel T. Lawson and others M. M. Edwards 1, which developed 1500 feet oil in the hole from regular lime at 2112-15 feet, with assurance of making a commercial producer. Casing has been cemented to complete the outpost producer, which is located 1650 feet from the east and 330 feet from the south lines of Section 16, Block 33, T. & P. Ry. Survey, T-2-S, Glasscock County, and about one-half west by north of the nearest producer. The Texas Company farmed out the 80-acre lease.

Stimulated activity has followed in the wake of a series of large oil completions in the Grand Falls district, Ward County, and it is quite certain that this field will continue the most active area in West Texas. Jack Leidecker and Clayton's Bennett-Pecos Mercantile Company 1, is the latest addition to the field, flowing 250 barrels daily from series of saturated lime layers at 2316-2566 feet, with a surface elevation of 2563 feet. The well was deepened to 2602 feet early last week without any appreciable gain in the oil flow, but is credited with having developed traces of water from the lower section of the lime. This well is on an 80-acre lease, and 2310 feet from the northeast and southeast lines of Section 16, Block 34, H&TC Ry. Survey. Texas Pacific Coal & Oil Company's Henry James 3, Section 5, established a new initial flow record for the field several weeks ago from lime at 2220-2320 feet, and when re-tested last week gauged 214 barrels 37 degrees gravity oil in two hours on open flow. Atlantic Pipe Line Company is running 75 barrels daily from the well, such being its maximum takings per well in the field. Wickett Pipe Line Company is the only other buyer. Wells in the Grand Falls field cost about $12,000 to complete, and nearly every completion flows when equipped with taper tubing. The oil commands the usual West Texas 65 cent posted price, and is desirable because of the low sulphur content, with the gasoline yielding a good octane rating.

The Iatan field, located on the Mitchell-Howard County line, contributed one of its largest wells when Sinclair Prairie Oil Company's Montgomery-Dodge 2 produced 195 barrels oil during 15-hour gauge after shot of 300 quarts in broken pay horizons at 2462 and 2505-20 feet.

Steel derrick has been erected by Broderick & Calvert, Fort Worth operators, for a wildcat on a block of 1600 acres in Ector County. George Callahan of Albany, Texas, has contracted to drill this test to 4500 feet, or to sulphur water in the big lime, using cable tools. The location is on the J. E. Parker land, being 350 feet out of the northwest corner of Section 15, Block 44, T. & P. Ry. Survey, T-2-S, and on a pronounced structural high extending across the county.

Panhandle Production Inequalities Protested

Pampa, Texas.—Usurpation of a large portion of the limited crude market outlet available in the Texas Panhandle district by two companies operating under the protection of a court injunction against proration enforcement and also by adjoining property owners to the above companies since 1930 forms the basis of a complaint by a number of operators against production inequalities. The Texas Railroad Commission has ordered a hearing on the matter to be held here July 16, and in all probabilities will adopt rules that will reduce, or curb the alleged special production privileges enjoyed by a few over a long period.

Freedom from all proration restrictions has been enjoyed by Danciger Oil & Refining Company since the officials of that company launched a prolonged fight against proration in obtaining a temporary injunction against the commission in Fifty-Third District Court at Austin on September 25, 1930. Sunray Oil Company obtained a restraining order against the proration orders of August 14, 1930, under similar circumstances, but in court proceedings that have since occurred the latter case was consolidated with the former. Danciger Oil & Refining Company was denied a permanent injunction in the same court of February 13, 1931, and later received an adverse decision at the hands of the Court of Appeals, but the case is now pending in Supreme Court. The law provides that the plaintiffs may produce unhampered and without being subjected to penalties for proration violation during appeal period. Therefore, the cost of appealing the case has been offset by enjoying wide open production privileges.

Companies and operators owning properties adjacent to the above opponents of proration were authorized by the commission to equalize oil and gas drainage, and most of the former have taken full advantage of the opportunity, thus accounting for the storm of protest from owners who are confronted with a shrinkage in market outlet because of special production allowances enjoyed by a select few.

Archer County Wildcat Strike Second in Month

Wichita Falls, Texas.—The second wildcat oil strike within a month for Archer County has resulted from the drilling of proposed tests to the Canyon lime horizon, or the 2300-foot level. W. B. Hamilton and associates have halted scheduled deep drilling operations on A. J. Ikard 1, on a block of about 5200 acres centering on the J. J. Young Survey, Abstract 761, to complete a 40-barrel pumper in the Gunsight saturated lime horizon at 1155-68 feet. This wildcat strike is several miles from production, and northwest of Anarene in the south central part of the county, and a quarter of a mile southeast of E. H. Sharp et al's Coffield-Ikard 1, which showed oil but failed to produce in commercial quantities when given two shots in the same shallow lime last April. Hamilton et al are rigging up to drill Cartwright 1 as a northeast diagonal offset to the above strike, and F-H-E Oil Company is to drill a short distance to the west.

North Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
ARCHER COUNTY—		
Carl B. Bailey et al, H. Harmel 1..	*	1878
Burns & Long, Birdwell 1	*	1450
Fain-McGaha Oil Corp., Fee 2-B....	200	1791
Luke Hodges et al, W. R. Farmer-Sun 1	*	1552
Houston & Houston, P. Browning 7	*	470
A. Z. Kouri et al, C. A. Montgomery 1	25	1124
E. R. Perkins et al, Owens 1	*	755
Petroleum Producers Co., J. W. Campbell 2	50	1784½
Staley-Wynne & Co., Turbeville 1..	*	1557

Company, Well and Location	Initial Production Bbls.	Depth
White & Duncan, S. Webb-Pruett 3	700	704
Whitehill Oil Corp., Morrison 19..	15	675
CLAY COUNTY—		
Seitz-Comegys & Seitz, Wright 1..	*	902
WICHITA COUNTY—		
R. R. Clark et al, Bickley 21.....	55	886
Bickley 22	50	880
C. R. Conyers et al, Mertins 1	*	1110
W. H. Hammon & Heyser, McCarty 13-A	20	1710
Geo. J. Proctor et al, Honaker 6..	*	1882
J. L. Swanner et al, Parker 6	40	1281
WILBARGER COUNTY—		
Fain-McGaha Oil Corp., Waggoner 22-L	*	2334
E. B. Lawson et al, Hawley 1	*	2975
YOUNG COUNTY—		
Floyd Ard, Jr., et al, Routon 1, Sec. 24	*	770
Cable Oil Co., Snider 24	25	582
Clarco Oil Co., Marshall 2	*	1175
Conner & Sons et al, Ford 1	*	2598
J. C. Cunningham et al, Kisinger 4	*	2770
Primrose Ref. Co., Stewart 1	*	861
A. H. & S. P. Schmitt, Belknap 9	15	696
Seitz-Comegys & Seitz, Truehart 1	*	550
W. R. Stafford et al, Senkel 1	*	552
Stasney et al, Cope 1	†	540
W. J. Watson et al, Watson 11 ..	15	703
D. L. Wolfe et al, Cole 2	*	756
E. L. Wolfe et al, Skiles 1	†	305

CENTRAL WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
BROWN COUNTY—		
Crabb & McNeill, J. W. Elsberry 7	5	1416
Dozier et al, Y. C. Jones-Cleveland 2	¶1	1472
H. P. Evans et al, Martin 1	*	975
Gunn Production Co., J. C. Dickens 3	*	1628
Stanolind O&G Co., Mrs. M. J. Suttles 22	*	510
CALLAHAN COUNTY—		
Hart Bros. & Perry, E. L. Finley 1	*	942
Ralph Herring et al, Radford 1	*	397
C. B. Holmes et al, L. M. Hadley 1	*	800
Sheehan Oil Co., J. A. Hutchinson-Dyer 1	*	1124
F. W. Stone et al, S. C. Barr 1	*	510
Woodley Pet. Co., E. L. Findley 9-D	*	685
Hatchett 18	30	425
Hatchett 19	40	431
Hatchett 20	10	434
Hatchett 21	15	405
COLEMAN COUNTY—		
Breck Oil Co., F. Golson 5	30	1612
Wittmer O&G Properties, Inc., Keeney 1	80	1820
EASTLAND COUNTY—		
Texas Pacific Coal & Oil Co., Fee 7	140	2990
PALO PINTO COUNTY—		
W. K. Gordon et al, Ross Ringo 1 .....¶3½		3346
Sinclair Prairie Oil Co., Ritchie (South) 1	*	1781
PARKER COUNTY—		
Delatross & Giles, A. O. Moran 1..	¶1	707
SHACKELFORD COUNTY—		
Albany Oil Co., E. A. Jeter 3	10	896
Callahan & Carter, Clark 5	30	672
Gilman & McMurray, J. A. Jeter 1-C	25	930
Herron 3	20	911
Gist et al, Rodriguez 1	*	800
Grisham & Hunter, Dora Ward 3..	*	2148
J. A. Pearman et al, J. B. Mathews 1	*	667
C. M. Root et al, J. T. Clark 1 ...	*	780
White & Brally, J. G. Smith 2	15	766

TEXAS PANHANDLE

Company, Well and Location	Initial Production Bbls.	Depth
BRISCOE COUNTY—		
Humble O&R Co., Adair 1	*	4010
CARSON COUNTY—		
Skelly Oil Co., H. Schafer-East 10	200	3238
GRAY COUNTY—		
Forester Oil Co. (Harry Foster) L. H. Webb 1	480	2632
M. R. Travis et al, Mrs. J. D. Back 3	35	2955
Warner Oil Co., A. Chapman 3 ..	700	2718
HUTCHINSON COUNTY—		
Combination O&G Co. & Allspaugh, Johnson 1	550	3050

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
LOVING COUNTY—		
J. L. Folbre, Est. & D. W. Evans, D. P. Dean 1	*	4275
C. A. Martin et al, Hugo Freels 1 ..	175	4237
MITCHELL COUNTY—		
R. J. Wallace et al, A. M. Bell 1..	120	2844
WARD COUNTY—		
Jack Leidecker et al, Pecos Mercantile Co. 1	250	2602
Buck Sturm & Simms Oil Co., R. H. Gill 2	100	2518
PECOS COUNTY—		
Corvette Oil Corp., H. Monroe 12..	*	567

Permits for Texas Wells

New Operations

ARCHER COUNTY—E. B. Madden, Olney, J. T. Richardson, 125, 19, B 1, S. Anderson sur, 360 ft from w and 2010 ft from s line. King Royalty Co., Wichita Falls, C. L. Abercrombie, B, 339, 1, B 153, Club Ranch sur, 200 ft from s and 600 ft from w line. E. R. Perkins, Olney, B. L. Owens, 60, 1, J. Saunders sur, 150 ft from n and 841 ft from w line. A. Minnich, Archer City, M. Wilson, 195, 6, J. W. Scott sur, 2510 ft from n and 1800 ft from w line. Hellams & Jones, Wichita Falls, Perkins-Cullum, 5, 2, B 20, Holliday sur, 150 ft from e and 200 ft from s line. White, Duncan, Holt & Tedford, Wichita Falls, S. Webb, 40, 5, B 1, I&GN sur, 750 ft from n and 450 ft from e line. A. E. Stoute, Wichita Falls, L. F. Wilson, 220, 1B, B 94, Amer. Trib. sur, 330 ft from n and w lines.

BEE COUNTY—Houston Oil Co., Houston, M. A. Newman, 397, 4, N. A. Kerr sur, 1000 ft from w and 300 ft from s line.

BEXAR COUNTY—W. R. Swearingen et al, San Antonio, J. E. Halbardier, 93, 10, No. 57, J. F. Perez sur, 400 ft e of No. 6. Robt. C. Hill, San Antonio, F. Scheel, 161, 1, S 234, Peretaux sur, 1300 ft from n and 1100 ft from w line. Amerada Pet. Corp., San Antonio, P. Kiolbassa, 100, 1, A. Manchaca sur, 1000 ft from e and 600 ft from s line. Alamo Natural Gas Co., San Antonio, G. J. Gembler, 431, 4, No. 51 A. Manchaca sur, 1880 ft from e and 1400 ft from s line.

BROWN COUNTY — Charter Oil Co., Brownwood, O. H. Nichols, 60, 5, M. M. Flores sur, 600 ft from s and w lines. E. W. McCrary, Tulsa, Okla., Smith, 132, 22, M. Huling sur, 870 ft s of No. 13. Maxwell Park Drilling Co., Coleman, Y. C. Jones, 40, 2, S 19, H. Kaber sur, nw corner.

CALLAHAN COUNTY — Fred Read, Abilene, J. B. Taylor, 40, 1, Sec. 67 sur, 150 ft from n and 450 ft from w line. Terry & Duncan, Cisco, A. E. Clark, 160, 1, Sec. 310, S. P. Ry. sur, nw corner. Kleiner Bros., Cisco, J. M. Isenhour, 320, 2, 2275 TE&L sur, 1853 ft from n and 1844 ft from e li of sec. Drew Beams, Okmulgee, Okla., I. N. Jackson, 280 D5, S 21, E. T. Ry. sur, 200 ft from n and 600 ft from e line. Marshall Matson, Baird, O. E. Radford, 240, 3, S 79, Bayland Asy. sur, 150 ft from s and 1020 ft from e line.

CARSON COUNTY—Skelly Oil Co., Tulsa, Okla., H. Schafer, 640, 11, S 189, B 3, I&GN sur, 440 ft from n and 2640 ft from e li se¼. Texoma Natural Gas Co., Amarillo, E. J. Moore, 180, 1T, S 21, B 7, I&GN sur, 1320 ft from n and 1220 ft from e line.

COLEMAN COUNTY—Shaffer & Shaffer, Coleman, H. Campbell, 120, 1, S 495, B 30, J. A. H. Cleveland sur, 150 ft from s and w lines. Preston & Hodges, Brownwood, R. Goodwin, 70, 1, S 259, W. T. Dunlavy sur, 150 ft from s and e lines. T. C. McMurray, Fort Worth, F. Golson, 40, 12, I. Harris sur, 330 ft s of No. 11. Anderson & Newton, Burkett, R. E. Harris, 250, 1, B 1, MEP&P sur, 150 ft from s and w lines.

CHAMBERS COUNTY—Texas Gulf Prod. Co., Houston, Kirby, 22, H-11, H. Griffith sur, 41 ft from n and 794 ft from e line.

CHEROKEE COUNTY—Mid-Kansas Oil & Gas Co., Shreveport, La., H. D. Kelly, 86, 3, M. S. Coy sur, 330 ft from n and e lines.

CLAY COUNTY—Seitz, Comegys & Seitz, Wichita Falls, L. S. Wright, 320, 1, 2643 TE&L sur.

CRANE COUNTY—Gulf Prod. Co., Houston, J. T. McElroy, 640, 10, 1 S, 201, B F CCSD&RGNG sur, 1320 ft from s and e li of sec.

DUVAL COUNTY—Magnolia Pet. Co., Dallas, G. Wendt, 120, 2, S 44, J. Poitevent sur, 1171 ft from n and 155 ft from w line.

ERATH COUNTY—I. S. Cruse, Stephenville, J. B. Waddington, 80, 1, A. B. Eastern sur, 150 ft from n and 4243 ft from w line.

FALLS COUNTY—C. P. Shuh, Marlin, H. A. Patton, 77, 1, A. Montgomery sur, 500 ft from s and e lines.

GREGG COUNTY—Liner, Inc., Longview, J. C. Clayborn, 31, 2-E, I. Baity sur, 218 ft from n and 330 ft from w line. Selby Oil & Gas Co., Tulsa, Okla., A. Miller, 80, 4, H. Brown sur, 1173 ft s of center of n line. F. P. Hynes, San Antonio, D. Hilburn, 35, 2, W. P. Chisum sur, 452 ft e of center of w line. J. B. Sowell, Dallas, W. P. Luse, 34, 1, E. L. Walker sur, center; W. W. C. Turnbow Pet. Co., Longview, J. C. McKinley, 16, 2, D. Sanchez sur, 382 ft from e and 216 ft from s line. Louis Sikes, Tyler, L. A. Rodden, 10, 2, J. R. Crosby sur, 260 ft from n and 248 ft from w line. Alma Pet. Corp., Oklahoma City, Okla., J. W. L. Younse, 86, 4, Wm. Goodwin sur, 689 ft from w and 150 ft from s line. P. N. Wiggins, Tyler, L. Martin, 13, 1, T. Johnson sur, 176 ft from n and 330 ft from e line. Rio Oil Corp., Fort Worth, L. Graves, 106, 5, No 18, M. Irwin sur, 1550 ft from e and 330 ft from s line. Russell Pet. Co., Kilgore, C. C. Crews, 35, 1, L. Perkins sur, 332 ft from e and 388 ft from n line. J. E. Mabee Co., Arp, M. T. Cole, 120, 2, T. Johnson sur, 372 ft from n and 1173 ft from w line; 1, 1665 ft from n and 330 ft from w line. E. C. Hankamer, Tyler, C. L. Taylor, 2½, 1, W. H. Castleberry, center. Rowan & Pekros, Longview, G. Jackson, 25, 1, D. Meredith sur, 330 ft from n and w lines; 2, 330 ft from s and w lines. Superior Oil Co., Dallas, H. Pritchard, A, 100, 6, F. W. Johnson sur, 1137 ft from n and 330 ft from e line. Midas Oil Co., Dallas, J. W. Bacle, 21, 6, G. W. Hooper sur, 185 ft w of center of e line. Mar La Fay Oil Corp., Gladewater, L. J. Everett, 2, 1, Hokit-Dillard sur, center of Blk. 6. S. A. Guiberson, Jr., Dallas, C. L. Taylor, 5, 1, Castleberry sur, center. Jno. R. Bunn, Ardmore, Okla., J. S. Elder, 5, 1, M. Van Winkle sur, 185 ft from w and 232 ft from s line. Abernathy & Kirkpatrick, Gladewater, R. M. Wood, 2½, 7, Hokitt sur, center of Blk. 136. Liner, Inc., Longview, J. C. Clayborn, 15, 211, I. Baity sur, 330 ft from n and 160 ft from s line. H. R. Smith, Inc., Luling, R. Gray, 31, 2, D. Dainwood sur, 450 ft s of center of n line. Liner, Inc., Longview, J. C. Clayborn, 31, 5-J, I. Baity sur, 258 ft n of center of s line. Deep Rock Oil Co., Tulsa, Okla., H. Pritchard, 40, 2, F. W. Johnson sur, 300 ft from e and 230 ft from s line. Dyck Oil Co., Tulsa, Okla., J. M. Christian, 37, 4, G. W. Hooper sur, 330 ft n of No. 3; 5, 330 ft n of No. 4. Whittle-Kavanaugh Oil Corp., Houston, W. Smith, 7, 2, J. S. Caruthers sur, 400 ft from w and 115 ft from s line. Imperial Pet. Co., Dallas, Shoults, 21, 3, M. Irwin sur, 328 ft e of No. 1. H. S. Moss, Dallas, G. B. Tenery, 10, 3, Wm. Robinson sur, 150 ft n of center of s line. American Liberty Oil Co., Dallas, I. L. Kinney, 336, 11, M. V. Pena sur, 660 ft e of No. 9, (Rusk County). J. C. Hunter, Gladewater, T&P Ry., 13, 1, H. R. Hokit sur, center; 2, sw of No. 1; 4, ne of No. 2; 5, ne of No. 4. Peoples Pet. Co., Inc., Shreveport, La., C. B. Everett, 20, 3, Jno. Ruddle sur, 204 ft from w and 100 ft from s line. Superior Oil Co., Dal-

las, H. Pritchard, A, 100, 7, F. W. Johnson sur, 252 ft from n and 502 ft from e line. Gulf Prod. Co., Houston, M. O. Shepperd, 335, 15, G. R. Rains sur, 660 ft s of No. 10; J. C. Judge, 518, 20, F. W. Johnson sur, 660 ft s of No. 6; 21, 660 ft ne of No. 22; C. Brown, 254, 12, L. B. Outlaw sur, 421 ft from e and 330 ft from s line; H. C. Alexander, 209, 13, M. Van Winkle sur, 1865 ft from n and 330 ft from w lnie; G. W. Culver, 208, 15, Jno. Wilkinson sur, 280 ft from w and 330 ft from n line; A. Spear, 279, 16, M. Van Winkle sur, 330 ft w of center of e line; J. C. Judge, 518, 25, F. W. Johnson sur, 660 ft sw of No. 24; 26, 660 ft sw of No. 25; 24, 660 ft sw of No. 23; 23, 660 ft sw of No. 22; 22, 660 ft sw of No. 21; 19, 925 ft e and 500 ft from s line; 15, 550 ft w of No. 5. Sun Oil Co., Dallas, J. M. Haynes, 201, 8, G. A. Thomasen sur, 330 ft from n and 360 ft from w line; 10, 660 ft s of No. 9; G. Reese, 124, 8, J. Hoy sur, 476 ft w of No. 3; A. Tooke, B, 80, W. C. Wakeland sur, 364 ft from n and 157 ft from w line; M. T. Cole, 264, 11, A. Park sur, 153 ft from n and 330 ft from w line; C. Brown, 100, 5, M. McCurry sur, 670 ft n of No. 3. Empire Gas & Fuel Co., Gladewater, J. T. Jeter, 123, 5, D. B. Choate sur, 330 ft from s and 1470 ft from e line; J. Bander, 93, 9, W. H. Castleberry sur, 330 ft from s and e lines; J. W. Akin, 100, 5, W. H. Castleberry sur, 697 ft from s and 882 ft from e line; A. Green, 67, 6, W. G. Wakeland sur, 533 ft from s and 814 ft from w line. Sinclair Prairie Oil Co., Fort Worth, A. A. Lockhart, 133, 9, A. Norris sur, 136 ft from n and 330 ft from e line; A. A. King, B, 337, 18, A. Cormack sur, 330 ft from s and e lines; J. A. Akin, 96, 7, W. H. Castleberry sur, 660 ft n of No. 6; S. G. Andrews, 200, 11, J. G. Walker sur, 1690 ft from n and 330 ft from w line. Cranfill & Reynolds, Houston, R. C. Barnswell, B, 50, 2, P. McAnelly sur, 330 ft from s and 1191 ft from w line. Shell Pet. Corp., Dallas, Williams-Bonner 37, 4, M. Van Winkle sur, 825 ft e of No. 1; J. Moore, 350, 11, F. W. Johnson sur, 330 ft from w and 1210 ft from n line. Atlantic Oil Prod. Co., Dallas, H. Pritchard, 100, 7, Johnson sur, 502 ft from w and 980 ft from n line; 8, 300 ft from w and 1460 ft from n line; Burnside, A, 204, 12, F. W. Johnson sur, 1326 ft from n and 418 ft from w line; 13, 2326 ft from n and 418 ft from w line; 14, 3324 ft from n and 418 ft from w line; 15, 3989 ft from n and 418 ft from w line. Humble Oil & Ref. Co., Houston, W. C. Mackey, 198, 1, H. F. Rogers sur, 330 ft from w and 348 ft from s line; W. R. Hughes, 245, 12, D. Sanchez sur, 245 ft from w and 825 ft from s line. Columbia Oil & Gas Co., Dallas, Christian, A, 20, 2, H. Hathaway sur, 330 ft w of center of e line; T. Snoddy, 13, 2, W. H. Castleberry sur, 100 ft from n and 250 ft from w line. East Texas Oil Ref. Co., Dallas, E. Mitchell, 21, M. Van Winkle sur, 410 ft w of No. 2; A. Christian, 65, 4, G. W. Hooper sur, 330 ft from n and w lines. Yount-Lee Oil Co., Beaumont, F. Smith, 69, 5, Wm. Robinson sur, 715 ft n of No. 4; S. G. Smith, C, 56, 4, W. H. Castleberry sur, 762 ft w of No. 2; P. Hopkins, 100, 5, W. H. Castleberry sur, 590 ft n of No. 4; 6, 649 ft w of No. 4. Texas Co., Shreveport, La., J. Waddell, 27, 3, H. R. Hokit sur, 330 ft from w and 200 ft from s line; T. W. Lee, 210, 4, Wm. Tyndale sur, 255 ft from e and 330 ft from s line.

GRAY COUNTY—Texas Co., Fort Worth, J. E. Williams, 80, 10, S 7, B 1, A. C. H&B sur, nw corner. Kewanee Oil & Gas Co., Tulsa, Okla., Adams, C, 40, 1, S 3, B 26, H&GN sur, 330 ft from s and e li sw¼ of C. Crews, 160, 1, S 12, B 25, H&GN sur, se cor of nw¼. Parton & Holt, Pampa, Morse, 80, 4, S 5, B 26, H&GN sur, 660 ft from n and e lines.

HILL COUNTY—T. J. Spikes, Hubbard, M. H. Davis, 56, 1, B. F. Lowe sur, 150 ft from s and w lines.

HARRIS COUNTY — V. C. Smith et al, Dallas, P. S. Griffith, 250, 1, F. Bell sur, 601 ft from n and 582 ft from e line. Jno. A. Deering, Houston, J. Warren, 640, 1, T. A. Sully sur, 1475 ft from w and 1775 ft from n line. India Hill Oil Co., Houston, W. L. Schweinle 181, 1, Wm. White sur, ne corner.

HOWARD COUNTY—Sinclair-Prairie Oil Co., Fort Worth, G. M. Dodge, 640, 3, S 11B, 30, T&P sur, 429 ft from w and 1628 ft from s line.

JASPER COUNTY—Rio Neches Oil Co., Oklahoma City, Okla., Boykin, 160, 4A, M. Rackie sur, se corner.

JONES COUNTY—B. A. Duffy, Abilene, B. W. King, 77, 3, B 19, M. Bueno sur, 510 ft from n and 150 ft from w line.

LIBERTY COUNTY — Toner & Purdy, Houston, M. E. Roberts, 1B, J. F. Rumayor sur, 2059 ft from n and 25,240 ft from e line.

LIVE OAK COUNTY—Jno. F. Camp, San Antonio, L. F. Reagan, 1663, 1, W. O'Docherty sur, 3100 ft from e and 2200 ft from n line.

NUECES COUNTY—Saxet Gas Co., Houston, W. W. Walton, 432, 2, 629 ft from w and 205 ft from s line.

POTTER COUNTY—Red River Gas Co., Amarillo, Bivins, A, 480, 7, S 38, B M20, G&M sur, center of sw¼.

PECOS COUNTY — Culbertson Bros. Co., Fort Worth, J. Monroe, 520, B11, S 39, B 194, GC&SF sur, 285 ft w of center of e line.

RUSK COUNTY—H. E. Hale, Kansas City, Mo., S. Clay, 55, 3, J. Ximinez sur, 685 ft from w and 330 ft from s line. Hunt Prod. Co., Tyler, V. E. Reid, 120, 5, T. J. Martin sur, 660 ft e of No. 4. J. W. Robbins, Fort Worth, C. W. Mullins, 30, 4, F. Cordova sur, 150 ft from s and w lines. Moss & Urschel, Dallas, H. L. Griffin, 20, 2, J. Ximinez sur, 150 ft w of center of e line. American Liberty Oil Co., Dallas, I. L. Kinney, 336, 11, M. V. Pena sur, 660 ft e of No. 9. Deep Rock Oil Co., Tulsa, Okla., T. J. Stovall, 193, 12, J. B. Cadena sur, 330 ft from n and w lines. Entyre Pet. Corp. & Pritchard, Oklahoma City, Okla., M. Giles, 13, 3, M. J. Pru sur, 200 ft from n and 330 ft from w line. C. W. Williams, Fort Stockton, Bradberry, 28, 2, R. W. Smith sur, 330 ft from n and w lines. Conservation Oil Co., Dallas, L. Harmon, 33, 8, F. Cordova sur, 150 ft from w and 740 ft from n line. Moss & Urschel, Dallas, Deason, 15, 4, Pru & Ximinez sur, 300 ft from e and 398 ft from n line. C. P. Oil Co., Henderson, Giles, 30, 4, M. J. Pru sur, 150 ft from n and 345 ft from w line. Floyd Scott, Fort Worth, R. Pool, 2, 1, M. J. Pru sur, center of lot 8. Mills Bennett Prod. Co., Houston, E. L. Pinkston, 108, 6, M. V. Pena sur, 424 ft from n and 1020 ft from e line. Webb Pet. Co., Kilgore, M. R. Terrell, 21, 1, W. R. Cook sur, 330 ft from s and e lines. Humble Oil & Ref. Co., Houston, I. Holt, B, 91, 5, J. M. Barton sur, 330 ft from s and e lines; W. L. Price, 446, 14, J. M. Scott sur, 990 ft from s and 330 ft from e line; J. T. Sexton, A, 137, 5, M. McCabe sur, 330 ft from n and 1628 ft from w line; J. E. Wheelis, 168, 11, F. Cordova sur, 2172 ft from s and 170 ft from w line; J. T. Sexton, A, 137, 6, M. McCabe sur, 330 ft from n and 2289 ft from w line; H. Sexton, B, 264, 8, Martin & McCabe sur, 330 ft from s and e lines; S. A. Glover, 58, 3, T. H. Smith sur, 330 ft from s and 501 ft from e line; C. Pilgreen, 136, 7, T. H. Smith sur, 330 ft from s and 538 ft from w line. Stanolind Oil & Gas Co., Fort Worth, W. H. Siler, 983, 18, M. Walker sur, 1130 ft from w and 2863 ft from n line; 14, 823 ft from n and 1200 ft from w line; 12, 3433 ft from n and 1610 ft from w line; 13, 2963 ft from n and 1050 ft from w line; 20, T. M. White sur, 2222 ft from n and 330 ft from w line. Stanolind Oil & Gas Co., Fort Worth, W. H. Siler, 983, 22, T. M. White sur, 2018 ft from n and 1130 ft from w line; 21, 1174 ft from n and 1130 ft from w line; R. G. Mason, 107, 5, J. B. Cadena sur, 1236 ft from e and 875 ft from s line; R. A. Moores, 251, 14, J. B. Cadena sur, 330 ft from s and 1142 ft from e line; 15, 330 ft from s and 1843 ft from e line; 12, 230 ft w of center of e line; R. G. Mason, 100, 4, J. B. Cadena sur, 230 ft from w and 330 ft from s line. Gulf Prod. Co., Houston, C. E. Christian, B, 99, 5, W. R. Cooke sur, 590 ft n of No. 1; L. P. Thrash, 78, 5, F. Cordova sur, 578 ft e of No. 3; C. E. Christian, B, 99, 6, W. R. Cooke sur, 330 ft from s and w lines; W. G. Sexton, 165, 4, M. McCabe sur, 660 ft e of No. 3; Mayfield, C, 103, 6, J. B. Cadena sur, 330 ft from n and e lines. Mid-Kansas Oil & Gas Co., Tulsa, Okla., R. G. Mason, 104, 6, J. B. Cadena sur, 330 ft from w and 144 ft from s line; M. M. Cross, 814, 31, J. B. Cadena sur, 4035 ft from w and 1650 ft from s line; 33, 1605 ft from w and 1650 ft from s line; 32, 2715 ft from w and 1650 ft from s line; 30, 4895 ft from w and 1850 ft from s line; J. F. Mason, 103, 9, J. B. Cadena sur, 660 ft se of No. 8; M. A. Price, 201, 8, J. B. Cadena sur, 420 ft w of No. 7; J. M. Price, 54, 7, J. B. Cadena sur, 144 ft from n and 330 ft from w line. Gulf Prod. Co., Houston, C. O. Crim, 42, 4, Geo. Berry sur, 413 ft from w and 330 ft from s line. East Texas Ref. Co., Dallas, D. Wills, 83, 8, W. P. Chisum sur, 330 ft from n and 928 ft from w line. Sinclair-Prairie Oil Co., Fort Worth, D. Ledbetter, 191, 13, T. M. White sur, 330 ft from s and e lines; 14, W. D. Porter sur, 330 ft from s and w lines.

SMITH COUNTY—W. L. & T. L. Sessions, Dallas, S. Stone, 50, 3, D. Shaw sur, 330 ft from n and w lines. Arcadia Ref. Co., Tyler, J. R. Green, 55, 5A, Jas. Jordan sur, 660 ft e of No. 2. Sinclair-Prairie Oil Co., Fort Worth, A. Wiley, 312, 8, Jas. Jordan sur, 170 ft from n and 1400 ft from e line.

SAN PATRICIO COUNTY—Jno. F. Camp, San Antonio, W. R. Bennett, 160, 1, S 8, J. J. Welder sur, center of se¼.

SHACKLEFORD COUNTY — Callihan & Carter Dev. Co., Albany, Clarke, 58, 5, S 2, Blind Asy. sur, 300 ft w of No. 1. S. C. Brewer, Breckenridge, E. A. Jeter, 40, 1, S 14, B 11, T&P sur, 150 ft from n and e lines. I. D. Prewitt, Abilene, S. Simpson, 721, 2, S 13, B 3, H&TC sur, 600 ft n of No. 1. Callihan & Worth Pet. Co., Albany, A. Earheart, 40, 1, S 18, B 11, T&P sur, 766 ft from n and 175 ft from w line. C. S. Carroll, 320, Dallas, R. J. Moberly, 100, 2, S 59, B 11, T&P sur, 435 ft from w and 660 ft from s line. St. Mary's Oil & Gas Co., Moran, W. Y. Davis, 80, 4, S 19, B 13, T&P sur, 150 ft from s and e li nw¼. J. A. Bearman, Cisco, R. L. McGough, 40, 1, Blk. 3, E. T. Ry. sur, 1000 ft from w and 800 ft from s line.

STARR COUNTY—Los Olmos Oil & Gas Co., Harlingen, Kelsey-Bass, 2590, 20, S 6, Por. 75-76-77, 510 from w and 625 ft from s li se¼ sw¼; 19, 400 ft from e and 300 ft from n li ne¼ nw¼.

THROCKMORTON COUNTY—J. A. Bearman et al, Cisco, Ledbetter, 160, 5B, S 2, S. P. Ry. sur, 600 ft from n and 1000 ft from w line.

UPSHUR COUNTY—Rio Oil Corp., Fort Worth, L. Graves, 106, 3, M. Irwin sur, 361 ft n of center of s line; 4, 670 ft e of No. 3. Bradstreet & Jackson, Fort Worth, O. M. Victory, 20, 1, E. A. J. Evans sur, 330 ft from s and w lines. California Pet. Co., Shreveport, La., A. G. Deering, 70, 5, J. M. Pineda sur, 330 ft w of center of e line. Humble Oil & Ref. Co., Houston, M. Mattox, 62, 3, J. M. Pineda sur, 330 ft from n and e lines.

VAN ZANDT COUNTY — Pure Oil Co., Fort Worth, M. Elliott, 101, 2, A. H. Wiley sur, 250 ft from n and 642 ft from w line.

WARD COUNTY — Texas Pacific Coal & Oil Co., Fort Worth, H. James, 640, 4, S 5, B 34, H&TC sur, 330 ft from ne and 2364 ft from se line.

YOUNG COUNTY—W. N. Maer, Wichita Falls, R. B. Allison, 40, 1, 26, TE&L sur, 150 ft from s and w lines. T. G. Shaw Oil Corp., Fort Worth, H. F. Haygood, 74, 1, 1929 TE&L sur, 150 ft from n and e lines. B. C. Gilmore, Markley, J. W. Cox, 60, 1, B 13, YCSL sur, 150 ft from w and 1170 ft from s line. Wooten & Reed et al, Graham, J. A. Horton, 132, 4, 1906 TE&L sur, 1050 ft from w and 750 ft from s line. D. M. Knox, Graham, B. G. Moseley, 60, 1, B. G. Moseley sur, 1900 ft from n and 1530 ft from e li of survey. D. L. Wolf, Olney, Jourdan, 15, 1, 244 TE&L sur, 150 ft from n and w lines. Mid-Tex. Prod. Co., Breckenridge, Childress-Donnell, 133, 5, I. A. Morgan sur, 790 ft from n and 200 ft from e line. B. O. Leidecker, et al, Graham, J. T. Rogers, 72, 1, W. Fitchett sur, 960 ft from e and 200 ft from s line. Henry Craig et al, Olney, R. J. McCloud, 30, 1, 1395 TE&L sur, 150 ft from n and 450 ft from w line. W. R. Stafford et al, Graham, R. E. Senkel, 40, 1, 1917 TE&L sur, 150 ft from n and e lines. King Royalty Co., Wichita Falls, W. F. Bailey, 40, 3, 165 TE&L sur, 150 ft from e and 750 ft from n line.

ZAPATA COUNTY—O. W. Killam, Laredo, V. Medina, 64, 10, Sh. 34, Comitas sur, 1805 ft from ne and 1588 ft from se line; 9, 1480 ft from ne and 325 ft from se line; 7, 524 ft from nw and 824 ft from ne line; 8, 1130 ft from ne and 325 ft from se line; 6, 325 ft from se and 830 ft from ne line. S. R. & C. Oil Corp., San Antonio, G. T. Montemayor, 40, D12, S 64, B 10, 150 ft from s and w lines.

SOUTH TEXAS

Second Bobrose Well in New Luling Sector Seems Assured of Production; Duval County Production Extended.

EARL POST, *Staff Representative, San Antonio*

New Producing Horizons Opened in Saxet Field

San Antonio, Texas.—Two new producers opened two more producing horizons in the Saxet field of Nueces County, while a wildcat definitely established a second prolific gas sand in the King field of the same county.

Gulf Coast Oil Company's Bessie Elder 2, located on Block 29, H. B. Sheppard survey, is flowing 150 barrels from 2732-40 feet. A string of 9⅝-inch casing was set to 2731 feet. This is the shallowest oil producing horizon in the field.

V. B. Hillegeist's McGregor 1, survey 311, is flowing 300 barrels on a ¾-inch choke from 4867-75 feet with a string of 9⅝-inch casing set on top of the sand. This is the sand that Rutherford Drilling Company and Kepley Production Company tried to establish in two important tests, but both failed due to salt water encroachment.

Stanolind Oil & Gas Company and John F. Camp's King 2, 1⅛ miles east and south of the discovery well of the King gas field, encountered a sand at 4010-30 feet, which developed 800 pounds pressure on a drill stem test on one-quarter-inch choke in 45 seconds. On a production test, the gauge showed 1340 pounds on the tubing and 1630 pounds on the casing through three eighths-inch choke. It is estimated at 40,000,000 cubic feet or better. The well likely will be drilled deeper in quest of oil. It originally was finished at 3914-25 feet, showing 1000 pounds pressure on the tubing and 1300 pounds on the casing through one half inch choke, showing an actual flow of 4,325,000 cubic feet. The well is located 660 feet from the south and east lines of Section 23 of the Richard King Farms.

Two Bee County Wildcat Tests Are Abandoned

San Antonio, Texas.—Two tests to 6000 feet and a third to 5000 feet were abandoned in Bee County wildcat territory.

Humble Oil & Refining Company's Laura Thompson 1, located 6381 feet from the north line and 15,094 feet from the west line of the 25,597-acre tract in the Garrett Roche survey, was given up at 6180 feet. Texas Gulf Production Company's Webb Hearn 1, PPT Irrigation Company survey, was a dry hole at 6089 feet. This well had a showing at 4993 feet to 5008 feet, which developed 34 fourbles of mud and some gas on a drill stem test. It was deepened to 5037 feet, where it showed more gas and mud. At 5948-50 feet, it showed gas and threatened to blow out. Shale cavings, however, prevented completion. The test was sidetracked at 5800 feet where an attempt was made to get through the cavings. It finally was stopped at 6089 feet. The well is 1500 feet north and 43 degrees east of the Humble & Hulbert's Wood 1, thence 300 feet northwest from that line at right angles. The Wood well had showings at 5000 feet, which almost developed into an oil producer.

United Production Company's J. Scott 1 or 4, 472 feet from the north corner and 589 feet from the west line of the J. Uranga survey, in a 4000-acre tract, one mile south of Normanna, was abandoned at 5038 feet. It had showings at 4405-25 feet, which showed mud, gas and oil on a drill stem test. The well was drilled by The Texas Company.

Government Wells Area Extended One Mile

San Antonio, Texas.—Another mile was added to the producing area of the new northern sector of the Government Wells field, Duval County, bringing the acreage of two new companies into the play. As a result of the discoveries, at least a dozen additional operations are expected to start immediately.

R. B. Byrd's P. T. Wright 1, located 150 feet from the north and west line of Section 101, one mile north and slightly east of the discovery, topped the sand at 2292 feet, where casing has been set. Completion of this well will call for offsets by Humble Oil & Refining Company and Pure Oil Company. Shell Petroleum Corporation also is placed in probable proven territory as a result of the test.

Magnolia Petroleum Company, which already has one producer and a second in process of completion, is launching an extensive campaign, mostly offsets. It holds acreage offsetting several of the wells now in process of completion as well as other choice stuff certain to be drilled. Two locations were made late in the week with several more being staked, the majority of the work being in Section 44.

San Diego Company, a recently formed corporation of royalty and lease holders interested in the Suttle discovery well, which took over that operator's properties, held a stockholders meeting early last week at which time it was voted to drill five or more wells immediately. The company has several hundred acres in the center of proven area, which means immediate offsets.

Anderson et al's Riley 1, SW Section 44, topped the sand at 2282 feet, drilled to 2286 feet and is now in process of completion. Magnolia Petroleum Company's J. T. Johnson 1, NE Section 44, offset to the discovery well, is being completed after topping the sand at 2329 feet. Petroleum Finance Corporation's C. W. Hahl 1, SW Section 46, is in process of completion after hitting the sand at 2296 feet. Windsor Oil Company's Cummings 1, E½ NW NE Section 44, a half-mile north of the discovery, topped the sand at 2286 feet and has set casing.

Bobrose Well at Luling Will Make Producer

San Antonio, Texas.—Bobrose Oil & Refineries, Inc., apparently has some sort of well in Walker 1-B, Solomon Seal survey, one mile north the Rose crevice producer near Luling, Caldwell County. The well originally tested a sand at 1770-75 feet, which showed a little production, but was deepened to 2201 feet. It topped the Austin chalk at 2150 feet. The well has had a kerosene saturation from 1770 feet to bottom.

Townes and Porter's Dunlap 1, northwest offset to the Rose Crevice well, showed saturation in cores from the upper chalk and lower Taylor marl from 2105-45 feet. It was swabbed, showing about one barrel of oil and developing 25 pounds pressure through two-inch tubing. The owners plan to shoot the well, but Empire Oil & Gas and Bobrose Oil & Refineries, Inc., owning offset production from a crevice likely will take action to prevent this, as water encroachment likely will result. To date, neither of the producers have made any water.

Two other drilling operations are going on in this immediate area. Trinity Drillers, Inc., and M. O. Rayor are drilling N. L. Dunlap 1 at 1800 feet, while D. R. Buchanan is about 550 feet in M. C. Nugent 1, 150 feet from the south and west lines of the 46-acre tract. Both wells are in the Solomon Seal survey.

In the new Webster pool, about 12 miles to the northwest, C. J. Webster Oil & Gas Company topped Austin

chalk at 2001 feet in McCrory 1-A, 70 feet north and west of McCrory 1, about 70 feet higher than the original test. The first well made a producer in the Austin chalk, but developed water after being worked on for some time. It was shot in the Buda lime and the hole finally ruined. The test is in the McNeil survey.

Correction

In a story appearing on page 47, July 4 issue of THE OIL WEEKLY it was stated that "Bob Rose Trading His Well for Refinery at Luling." This was in error and Robert Rose, president of Bobrose Oil and Refineries, Inc., has advised that his negotiations for the Cranfill-Reynolds refinery at Luling is for the outright purchase of these properties. Included with the refinery, which has a capacity of around 2500 barrels a day, is one 80,000-barrel tank and a pipe line gathering system.

San Antonio, Texas. — Jacob, Buzzini & Pickett, Inc., completed Jacob 4-A, W. H. Jacob survey No. 4, McMullen County, for 75 barrels, flowing steadily through two-inch tubing from 939-65 feet. It is the largest of three producers to be completed in this newly discovered field.

South Texas Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BEE COUNTY—		
Humble O&R Co., Laura Thompson, Garrett Roche sur	*	6180
Texas Gulf Prod. Co., Webb Hearn 1 PPT Irrigation sur	*	6089
United Prod. Co. (dr by Texas Co.) J. Scott 1, J. Uranga sur, 1 mi s Normanna	*	5038
BROOKS COUNTY—		
Stearnes et al, Myrick 1, blk 2, lot 2, Falfurrias Farms sub	*	1315
CALDWELL COUNTY—		
George C. Sullivan (Shell), Plimsoll 1, M. W. Dennis sur, top Edwards 3995 ft	*	4002
McMULLEN COUNTY—		
Jacob, Buzzini & Pickett, Inc., Jacob 4-A, Sec. 8, W. H. Jacob sur, top snd 939 ft, flow through tubing	75	965
NUECES COUNTY—		
Gulf Coast Oil Co., B. Elder 2, blk 29, H. B. Shepperd sur, top snd 2732 ft	150	2740
Perkins & Legasse 1, sec 26, H. B. Sheppard sur, wild since May 6, drop from repts.	*	4566
V. B. Hillegeist, McGregor 1, sur 311, top snd 4867 ft	300	4875
STARR COUNTY—		
Felder, Mitchell & Barnsley, A. K. Bass 1, Por. 75-76-77, drop from repts	*	320
Los Olmos Oil & Gas Co., Kelsey Bass 19, Los Olmos pool	20	480
ZAPATA COUNTY—		
Allied O&G Co., Gutierrez 29, share 4, Comitas Grant	125	1478
S. R. & C. Oil Corp., Montemayor 12-D, Escobas	75	1475
Shankle-Newton O&G Co., sur 65, blk 12	50	1248
Trevino Oil Corp., Trevino 2-C, blk 15, sur 412	60	1211

Wildcat Drilling Report

BANDERA COUNTY—F. A. Brown, R. B. Watson 1, sur 70, dr 100 ft.

BEE COUNTY—Fitzgerald & Pryer, Albert Johnson 1, M. Alcorle Sur, loc. Gulf Coast Oil Co., Hicks 5, Normanna pool, mov on. Humble O&R Co., Laura Thompson 1, Garrett Roche Sur, dr 6090 ft. C. F. Nichols, J. P. Harris 1, Durango Sur, Sec. 2, dr 4075 ft. Texas Gulf Prod. Co., Webb Hearn 1, 1500 ft n Wood 1, P & T Irrigation Co. sur, sand 5948-50 ft, show heavy gas, some oil, sidetrack abt 5800 ft to avoid shale cavings.

BEXAR COUNTY—American Gas Co., Kennon 5, M. F. Rodriguez, Sur No. 4, Gas Ridge, sidetrack bit now dr 2350 ft. Alamo Nat'l Gas Co., Coreth 1, Menchaca Sur, 2500 ft e Eckert pool, prep to set csg abt 1000 ft to test show; Gembler 4, Menchca Sur, dr 750 ft. William V. Ballard et al, S. A. Land & Dev. Co., 1-A, Perez Sur, fsh 970 ft. E. M. Carl et al, F. Gembler 1, J. Montez Sur, move on to re-dr 482 ft. Chiquita Oil Co., Pianzek 3, Martinez Sur, Cooksey pool, dr 500 ft. Eckert et al, Edwards Heirs 1, dr 2015 ft. Moore & Jauer, H. Ellison 1, 14 mi w S. A., resume operations 2250 ft. C. J. Webster O&G Co., S. A. Irrigated Farms 1, Lot 2, Blk. 49 near Medina, dr 250 ft.

BROOKS COUNTY—Allen & Morris, Holbein-Wormser 2, Palo Blanco de Maguellos grant, Alta Mesa, to ru. M. P. Evans, J. M. Martinez, La Escantada Sur, Blk. 11, dr 2000 ft.

CALDWELL COUNTY — Bobrose Oil & Ref. Co., Inc., Walker 1, S. Seal Sur, Dunlap area top snd 1770 ft, top chalk 2150 ft, dr 2201 ft, kerosene saturation all the way. D. R. Buchanan, N. C. Nugent 1, S. Seal Sur, dr 500 ft. Porter & Townes (Smilock Oil Co.) Dunlap 1, S. Seal Sur, Dunlap area, saturation 2105-45 ft, swabbed 1 bbl oil, 25 lbs pressure through 2-in tubing. Trinity Drillers, Inc., N. L. Dunlap 1, S. Seal dr 1850 ft. C. J. Webster O&G Co., W. W. McCrory 1-A, McNeil Sur, Webster pool, coring 2000 ft; C. T. Robertson 1, ½ mil sw McCrory well, John Neil Sur, dk.

DEWITT COUNTY — J. F. Richardson & Mid-States O&G Co., Taylor 1, A. Albrete Sur, set 330 ft sur csg, now sd. The Texas Co., McCrabb 1, near Thomeston, James Quinn Sur, snd 4956-77 ft, dry dr ahead.

DUVAL COUNTY — A. R. Anderson, E. Riley 1, Sec. 44, Gov't Wells, and 2282-86 ft, set csg, woc. Aztec O&R Co., Duval Co. Ranch Co. 1, Sec. 322, sw Sarnoss, coring 2250 ft. R. B. Byrd, P. T. Wright 1, Sur 101, dr 1200 ft. John F. Camp, Weil 2, sw No. 1, Sur 57, dk. Clark & Cowden, Sutherland 1, lcn. Cole Pet. Co., Benevides 75, Sur 19, Blk. 8, Mariano Arispe Grant, Cole, coring 6390 ft; Benevides 76, Blk. 8, Sur 19, Cole, lcn, Frank Gravis, Schallert 3, Sur 265, Palangana salt dome, dr 550 ft. R. F. Duggan and J. D. Clark, Sutherland 1, Sur 188, lcn. Hynes & Nessley, Weil 1, Sur 130, set sur csg re-dr. Mag. Pet. Co., J. T. Johnson 1, Sur 44, Gov't Wells, top snd 2329 ft woc; Wendt 2, Sur 44, lcn. Harry M. Oliver, Wood-Welder 1, Sec. 213, dk. Pet Finance Corp., C. W. Mahl 1, Sec. 46, top snd 2296 ft woc. Plymouth Oil Co., A. Pharr 1, Blk. 48, San Andrez Grant, dr 2700 ft. Seacord, Putnam, Mins & Evans, Johnson 2, Sur. 44, dk. Smith et al (Capp) Duval Co. Ranch Co. 2, Sur 576, dk. The Texas Co., Peters 1, Sur 162, Kohler area, test sw 2607 ft; Freer 1, Sur 45, dk. Thomas & Tarver, Duval County Ranch Co. 1, Sec. 576, Sarnosa lcn; Whisenant et al, Hall 1, Sur. 44, ru. Windsor Oil Co., L. L. Cummings 1, Sur 44, top Cole snd 1560 ft.

GOLIAD COUNTY — Humble O&R Co., Fromme 1, G. W. Kersey Sur, 3 mi n Goliad, dr 4650 ft. L. Neal et al, J. M. Pettus 1, Pedro Trevino Sur, coring 5070 ft.

GONZALES COUNTY — Johnson-Mattocks O&G Co., J. James 1, M. A. Williams Sur, sd abt 3000 ft acct weather. A. J. Nessamer, M. Remzinsky 1, Gonzales Rge 5, Blk. 12, dr 550 ft.

GUADALUPE COUNTY—John F. Camp et al, Delaney 1, Jesus Cantu Sur, Zobroski area, set 2 jts surface csg. Humble O&R Co., Sue E. Denman 6-C, Darst Creek, top chalk 2110 ft, dr 2320 ft. George E. Smith, Bearing 1, Sal-Mar area, lcn. A. W. Wormser, Harris 1, ½ mi nw Salmar prod, dk; Pfallman 1, 450 w Prod. L. Ballinger Sur, dk.

JIM HOGG COUNTY—Clark & Cowden, E. Vela 1, Sec. 573, El Peyote Grant, to sp. R. L. Huckett et al, F. C. Guerra 1, Sec 86, Blk 6, dr 2435 ft, Randado Syndicate, Inc., Fee 1, Sur 148, Randado townsite, coring 1600 ft.

JIM WELLS COUNTY—J. Sloane, G. W. Wade 1, C. Blanca Sur, Blk 6, dr abt 3000 ft.

KARNES COUNTY—Pickett et al, Myers 1, dr 3425 ft, sandy shale.

KERN COUNTY — Eastland Oil Co., Jeff Love 1-B, Love Ranch, Sec 1594, dr 1275 ft.

LIVE OAK COUNTY—Camp et al, Reagan 1, Lobo gas area, dr 1625 ft.

McMULLEN COUNTY—Jacob, Buzzini & Pickett, Inc., J. Jacob 5-A, Sec. 8, W. H. Jacob Sur, Jacob pool, to mov on; J. Jacob 1-B, Sec. 15, GH & H Ry Sur, 1¼ mi n and e discovery, snd 1054-57 ft, set csg, dr in; J. Jacob 1-C, Sec. 47, J. Poitevant Sur, 2 mi nw field, lcn. V. G. Schimmel, Two River Ranch Co. 1, se cor sec 59, snd 773-85 ft, run wild about ½ hour, bridged over, now dr 860 ft.

MEDINA COUNTY—R. Robertson Dr. Co., J. J. Little 1, BS&S Sur No. 2, dr 2012 ft.

NUECES COUNTY — Gulf Coast Oil Co., Perkins & LeGasse 2, H. B. Sheppard Sur, Saxet area, mov on. McCarthy, Rogers, Nix et al, Esences 1, Blk. 12, Sheppard Farm lots sub, Saxet area, dk. Saxet Oil Co., W. A. Walton 2, Saxet area to ru. Stanolind O&G Co., King 2, King Farms, King gas area, snd 4010-30 ft, test 800 lbs ¼ choke, 45 seconds, sd for orders.

REFUGIO COUNTY — Gulf Prod. Co., J. O'Conner 2, CEPT & M. Sur, No. 40, mov on. Humble O&R Co., M. V. O'Conner 1, J. Kesting Sur, dr 5540 ft. Edwin M. Jones, J. Mitchell 1-B, Refugio town lots, hard sand 9098-9114 ft, soft and 9114-31 ft, set 3 3/16-in csg, 100 ft screen to bottom, woc. Larcro Gas & Pet. Co., Strauch 5, lot 2, Refguio, td 5560 ft, set csg, run screen, to complete. United Prod. Co., Fox 4, Hews & Brown Sur, Fox area, td 6560 ft, plug back.

SAN PATRICIO COUNTY — Atlantic Oil Prod. Co., Welder 4, Elder area dr 4500 ft. Camp & Stanolind O&G Co., Bennett 1, Sec. 8, Geo. S. Paul sub, set 500 ft sur csg, re-dr.

STARR COUNTY—Coastal O&G Co., Kelsey Bass 1, Blk 52, show gas 704 ft, set csg. H. D. Carpenter, Doyno-Chatfield 1, por 80, shale 21, to sp. E. O. Conner, Goodrich 1, lot 5, tract 5, por 81, ru. Frank Dawson, F. Madrigal 1, por 52, share 15, to sp. H. F. Griffith, et al, Kelsey Bass 1, Sec. 11, dr 1025 ft. P. A. Hoffman, Goodrich 1, blk 6, tract 5, por 80, lcn. R. E. Johnson, Seabury 1, (fee) tract 32, por 80, show oil 1700-07 ft, to test. Smith et al, Lopez 1, blk 20, share 65, por 80, dr 360 ft. Edgar Swift, Doyno 1, lot 5, share 774, por 81, sp. Tarver & Nance, Seabury et al 1, tract 21, w ½ por 79, coring 1988 ft. Traylor et al, La Borde 1, lot 6, tract 5, por 81, ru.

VICTORIA COUNTY — Cullen & West, Keeran 1, Keeran area, ream 5390 ft. Humble O&R Co., Peter Rydolph 1, McFadden area, Kemper Sur, dr 2010 ft. The Texas Co., A. M. McFadden 4, J. M. Rine Sur, td 2240 ft, sidetrack 1161 ft, set cement, dr ahead. Union Oil Co., Keeran 1, M. de Leon Cur, Keeran area, ream 3559 ft. Victoria Oil Co., Keeran 1, M. de Leon Sur, coring 5579 ft.

WEBB COUNTY—Frank Clark, Puig Bros. 1, La Albercas Grant, Aviator pool, dr 1250 ft. Tompkins & Edwards, Ortiz 1, Sec. 1808, CC & MF Sur, dr 1310 ft.

ZAPATA COUNTY—Ballard & Mercer, Flores 1, blk 27, por 37, dr 2590 ft. Joe Cullinan, Gutierrez 1, Charco de la India Grant, testing 1149 ft. Conohoo, Stevens & Brown, A. Garcia 1, share 2, blk 7, Radondo Grant, dr 1012 ft. L. G. Smith, M. G. Martinez 1, blk 18, share B, W. R. Duke Sur, sp. Windsor Oil Co., Martinez 1, blk 14, Charco Redondo Grant, dr 650 ft.

GULF COASTAL FIELDS

Montgomery County Drilling Nears Conclusive Stage; Lease Trading Still in Progress.

WM. V. GROSS, *Staff Representative, Houston, Texas*

Next Week May Tell The Tale at Conroe

Houston.—It will be another week, at least, before active tests drilling in the Conroe area of Montgomery County reach sufficient depth to place at the disposal of geologists information that can be relied upon to constitute a basis for the formation of some conception as to the subsurface nature of the producing horizon.

With the exception of one work-over, Heep Oil Corporation's R. L. Cartwright 1, none of the wells had penetrated to within 500 feet of the producing horizon on July 8, and it is reasonable to expect that drilling and coring the last thousand feet of these nine active pioneer tests will be slow and careful.

Of the group, Gieseke and Craft's South Texas Development Company 1, located far enough southeast of the discovery well to be in another field, should it make a producer, is the deepest, having attained 4214 feet July 8. Cores were being taken and the test was being closely watched, as it has a bearing on the value of more than five miles of leases extending from the discovery well to its location in the center of T.&N.O. R.R. Survey No. 9, part of which survey recently was leased by Humble Oil & Refining Company.

Of the more important recent lease deals in the Conroe area was the acquisition by Humble Oil & Refining Company of 920 acres in the H. B. Littlefield, C. A. West and T.&N.O. R.R. Surveys. Blocks taken in the first two named surveys are east of production. The purchaser is reported to have paid $100 per acre cash and to have allowed the owner to retain a thirty-second royalty for the 920 acres. Another important deal whereby Yount-Lee Oil Company obtained a lease on the 320 acres of McComb in the Lemuel Smith Survey for a reported $200 cash and $700 in oil per acre. This latter transaction indicates another convert to the southern cause, or those who believe the play will run that direction.

Status of drilling wells in the Conroe area on July 8 was as follows: Alpha Petroleum Corporation's South Texas Development Company 1, drilling in gumbo at 2980 feet; Heep Oil Corporation's C. Brent 1, drilling in sticky shale at 3279 feet; Heep's Cartwright 1, a workover, pulling screen and liner to deepen below old total depth of 5078 feet; Heep's Cartwright 2, drilling in gumbo at 1160 feet; Heep's George Hamman 1, coring shale at 4180 feet; Heep and Steinberger's C. C. Steinberger 1, drilling in gumbo at 1210 feet; Gulf Coast Drilling and Production Company's South Texas Development Company 1, drilling in gumbo at 1115 feet; Rowe and Flowers' Mrs. M. H. Alexander 1, drilling in sticky shale at 3801 feet; Rowe and Flowers' Varner Realty Company 1, drilling in hard shale at 4111 feet; G. W. Strake's South Texas Development Company 3, drilling in sticky shale at 2900 feet.

Humble Oil & Refining Company announced two new locations during the week: C. L. Dobbins 1 will be drilled 466 feet each way out of the northwest corner of the Dobbins tract in the Ransom House Survey, and South Texas Development Company 4 will be drilled as a west offset to Heep Oil Corporation's Cartwright 1, the former location south of the discovery well, the latter northeast of the discovery well.

Texas Gulf Coast Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BARBERS HILL FIELD—		
Sinclair-Prairie Oil Co., Wilburn 8..	145	4990
HUMBLE FIELD—		
Sun Oil Co., Bender 26 (wo).....	*	4577
The Texas Co., W. & P. Fee 25....	*	1751
MARKHAM DOME—		
Southern Drillers and Prod. Co., Hudson 1	*	3461
The Texas Co., T.T.P.L. Co., Fee 1.	*	3682
RABB RIDGE FIELD—		
Gulf Prod. Co. & Humble O&R Co., George B-1 1250		5310
George 4 2100		5324
RACCOON BEND FIELD—		
Humble O&R Co., McCasland 2....	*	3700
ROCKLAND DISTRICT—		
Rio Neches Oil Co., Boykin 3-A..	*	1295
SAN JACINTO COUNTY—		
Seven Wells Corp., Foster Lbr. Co. 1, H. A. Alsbury Sur	*	5041

Wildcat Drilling Report

(Wells shut down not included)

AUSTIN COUNTY—Great Southern Drilling Co., F. Schovajsa 1, S. F. Austin Four Lgs Sur, dr shale 1971 ft. Grant et al, A. A. Chesley 1, Raccoon Bend, dr gbo 804 ft.

BRAZORIA COUNTY—W. D. Southerland et al, C. W. Chapman 1, Lockridge dist, dr pink shale, 3120 ft. The Texas Co., Belcher 3, Manvel, ru. Hogg et al, Hogg 1, West Columbia, dr shale and lime 4622 ft.

BURLESON COUNTY—Ball Knob Oil Co., Polansky 1, N. B. Lawrence Sur, dr sndy shale, 632 ft. E. M. Bracey et al, Bracey 1, J. Lastly Sur, dr 832 ft in sndy shale. Sanson O&G Co., Duckworth & Gilley 1, P. Singleton Sur, sd at 2648 ft.

CHAMBERS COUNTY — (Barbers Hill) Mills Bennett, Barber A-4, dr sndy shale and lime, 3821 ft; Kirby 3, dr shale 3591 ft; J. B. Means 4, dr shale 4335 ft. Rio Bravo Oil Co., A. N. Fisher 3, dr rk 4500 ft. Sun Oil Co., Anne Higgins 3, dr rk 1450 ft. The Texas Co., Wilburn 6 (wo), td 4551 ft in sn, set 7-in cas, WOC. Texas Gulf Production Co., Kirby H-10, milling on job and fsh at 1008 ft; Cornelia Barber 2, dr salt 2353 ft; Kirby H-11, dr sn rk 650 ft.

FORT BEND COUNTY—Naylor & DeCosta, Naylor 1, Horatio Chrisman Sur, dr gbo and lime, 3730 ft. Humble & Gulf Production Co., Lockwood 4, Rabb Ridge, dk; Lockwood & Sharp 4-A, Rabb Ridge, dr 3110 ft; Lockwood & Sharp A-5, dr shale 5207 ft; Lockwood & Sharp 6-A, ru; F. I. Booth Est. 2, Rabb Ridge, dr 3300 ft; J. H. P. Davis 2, Rabb Ridge, dr 2433 ft; A. E. Myers 3, Rabb Ridge, dr 5000 ft. **The Texas Co.'s Wolters 1,** dr 4700 ft, Rabb Ridge. Stone & Wyman, Beard 1, dr shale 1652 ft. Gulf Prod. Co., Moore 33, Orchard, dr gbo and lime 1210 ft.

GALVESTON COUNTY—H. H. Stevenson, E. Lobitt 1, Dickinson dist, sd at 477 ft. Yount Lee Oil Co., Broussard & Orme 2, High Island, dr shale and lime, 3750 ft; Cade 28, High Island, dr hd sn 5816 ft; Cade 29, dr hd sn and lime 5055 ft; Nellie League 2, High Island, dr hd sn and lime 4328 ft; Smith 11, High Island, dr 4370 ft, hd sn and lime.

GRIMES COUNTY—J. C. Barnett et al, G. W. Dodd 1, Timothy Jones Sur, dr sndy shale, 1870 ft.

HARDIN COUNTY—W. R. Alexander et al, Southwestern Lbr. Co. 1, Mary K. Sherman Sur, spd and sd. Joe E. Proctor et al, J. R. Bevil 1, dr gbo 1938 ft.

HARRIS COUNTY—Suema Oil Corp., Wilson & Hunt 1, Elena Farms, dr sndy shale, 1205 ft. H. D. Morse et al, Schweinle 1, Hufsmith, ru. Gulf Prod. Co., Taylor 35, Pierce Junction, dr gbo 1290 ft. Rio Bravo Oil Co., Settegast 24-A, old td 4532 ft, sdtr at 4283 and dr at 4464 ft; Settegast 25-A, Pierce Junction, dk. S. B. Ward, Mowery 1, Pierce Junction, sd at 420 ft. J. D. Clay, Bender 1, Humble, dr cap rk at 1300 ft. Sun Oil Co., River 54, Humble, dr rk 900 ft. The Texas Co., H. C. House 26, Humble, dr sticky shale, 2630 ft. E. M. Wilson Oil Co., W & P Fee 10, Humble, dk. Jno. Deering, Warren 1, Hockley, dr broken sn 245 ft.

JACKSON COUNTY—Chicago Gulf Corp., Drushell 10, Edna dist, DST at 5188-96 ft showed 300 lbs gas.

JASPER COUNTY—Hext Dr. Co., Flournoy 1, B. F. Jones Sur, fsg for dr st at 4550 ft.

JEFFERSON COUNTY — Elam & Denny, Broussard 2, 2 miles w Sabine, sd at 1855 ft.

LIBERTY COUNTY — Cranfill-Reynolds, Davis 5, Esperson, oil sn 4545-4558 ft; Esperson 5, Esperson, old td 6711 ft, cleaning to 5186 ft and prep to sdtr. Aber Oil Co., Fee 1, Hull, dk. D & L Prod. Co., Pivoto & Hankhamer 1, Hull, dr gbo 3050 ft; Mecom & Layton 3, Hull, dk. Eclipse Oil Co., Barrow 2, Hull, dr shale 4966 ft; Knox-Nelson-Layton 1, Hull, dk. Healey & Southerland, Finley 1, Hull, dr shale 1522 ft. Houston Prod. Co., Baldwin 1, Hull, dk. Republic Prod. Co., Dolbear 55-A, dr hd shale, sn and lime, 1963 ft; Dolbear 146, dr 765 ft in gbo.

MADISON COUNTY — Andrews & Terry, Bullard 1, near Joyze, stg at 105 ft.

MATAGORDA COUNTY — Julia Oil Co., Gray 2, Markham, td 3623 ft, pulling screen to deepen. P. S. Griffith, L. Bear 3, dr hd shale 2610 ft, Big Hill. Sheppards Mott Dev. Co., Hawkins 1, Sheppards Mott, stg at 500 ft. United N & S Dev. Co., Stoddard 1, Buckeye dist, td 7831 ft, pulling scr to reset or dr dpr.

MONTGOMERY COUNTY — Alpha Pet. Corp., So Tex Dev. Co. 1, Conroe, dr gbo 2580 ft. Gieseke & Craft, So. Texas Dev. Co. 1, r in shale at 4160 ft; So. Texas Dev Co. 2, lcn in center of Blk 5, T&NO RR Sur. Heep Oil Corp., C. Brent 1, Conroe, dr sndy shale, 2500 ft; Cartwright 1, (wo), milling to dpn;

Cartwright 2, Conroe, td 870 ft, WOC; George Hamman 1, Conroe, coring below 4000 ft in shale. Humble Oil & Ref. Co., C. L. Dobbins 1, Conroe, lcn 425 ft fr n line and 466 ft fr w line, C. L. Dobbins tr in Ransom House Sur; So. Tex. Dev. Co. 4, Conroe, lcn 1900 ft n fr sec T. C. Howell Sur, thence 466 ft w at rt angles. C. C. Steinberger & Heep Oil Corp., Steinberger 1, Conroe, WOC at 865, set surf cas. Gulf Coast Drilling & Prod. Co., So. Tex. Dev. Co. 1, td 984 ft, set 10-in surf cas, WOC. Rowe & Flowers M. H. Alexander 1, dr sticky shale, 3630 ft; Varner Realty Co. 1, Conroe, coring shale at 4077 ft. G. W. Strake, So. Tex. Dev. Co. 3, Conroe, dr shale 2520 ft. Gohlson & Rycade, Alliance Tr. Co. 1, 5 mi se Montgomery, dr brown shale, 3530 ft.

NEWTON COUNTY—L. A. James, Price & Bevil 1, 4 mi ne Bleakwood, sd in sn at 350 ft. Sun Oil Co., Peavey Moore Lbr. Co., 1, F. Stover Sur. No. 4, bldg rd.

ORANGE COUNTY—Ala-Tex. Oil Co., Reed 1, 2¼ mi se Orange, dr sn 4808 ft. Orange Pet. Co., Chesson 13, (wo), Orange, dr 3266 gbo. Sun Oil Co., Belile 1, (wo), dr shale and lime 4388 ft.

WALKER COUNTY — Howard & Dooley, Smithers Bros. 1, S. Manning Sur, dr in sn and shale, 2377 ft. W. E. Brown, Hoshall 1, E. Miller Sur. spd.

WASHINGTON COUNTY—A. E. Deittrich, H. F. Wendt 1, Clay Creek, dr sn 1500 ft, no show. Clay Creek Oil Co., Addie Bimage 1, dr shale 1250 ft. O'Brien, Jeske 1, Clay Creek Sur, J. F. Perry Sur, dk. M.O.T. Oil Co., Giddings 1, dk.

Louisiana Gulf Coast Field Developments

Completions

Company, Well and Location	Initial Production Bbls.	Depth
BAY ST. ELAINE—		
Freeport Sulphur Co., Wurzlow 3 ..	*	1755
CALCASIEU PARISH—		
Wilfred Lahay, Jardell 1, 25-10s-12w	*	3900
EAST HACKBERRY—		
Sul-Tex. Oil Co., Dorion 1	*	4100
LAKE BARRE—		
The Texas Co., Lake Barre 4	297	3822

Wildcat Drilling Report

(Wells shut down not included)

ACADIA PARISH — Ratliffe-Seiss-McLean, Crusel 2, Evangeline, dr 1570 ft, sndy shale. Reliable Oil Co., Rawson-Haber 1, Evangeline, showing oil at 1927 ft.

ASCENCION PARISH—McElroy Oil Co., Lacy 2, sw offset to Sorrento dome, 20-10s-4e, temp abn at 4560 ft after fsh for dr st.

CALCASIEU PARISH—Magnolia Pet. Co., B. T. Walt 2, Iowa, dr gbo 1168 ft. Union Sulphur Co., Moss 3, Lockport, dr hd sn 5160 ft; Fee 769, Sulphur, corrected td, 4604 ft.

CAMERON PARISH — Brownie-Babbette Oil Co., R. A. Moore 1, Black Bayou, dr sn and sh 6625 ft. Jim Oil Co., Erwin 7, E. Hackberry, td 3070 ft, prep to dr deeper. Moon Oil Co., Breau 1, E. Hackberry, dr 3640 ft. Magnolia Pet. Co., Cameron Meadows 2, (wo), waiting orders at 5273 ft. Lackawanna Oil Co., Porter Ellender 1, Old Hackberry, mir. Pop Oil Co., Ellender 1, Old Hackberry, prep to sp. Union Sulphur Co., Pure Oil Co. 1, E. Hackberry, fsh for dr st in sn shwg oil at 8324 ft. Union Sulphur Co., Humble 2, E. Hackberry, dr rk 5665 ft. The Texas Co., State E. Hackberry 9, dr hd sn 3080 ft. Yount Lee Oil Co., School Land 11, Old Hackberry, dr hd sn 3630 ft.

IBERVILLE PARISH — Standard Oil Co. of La., Myrtle Grove-Wilbert 2, Bayou Choctaw, dr salt 4240 ft.

LA FOURCHE PARISH—The Texas Co., L. L. E. Leesville 5, Leesville, dr sticky shale 3595 ft. States Prod. Co., Swamp-Starck G, lcn at Chacahoula dome.

TERREBONNE PARISH—The Texas Co., Lake Pelto 7, Lake Pelto, bldg dk; State Lake Barre 14, dr 3793 ft; State Lake Barre 16, wor.

VERMILION PARISH—Pure Oil Co., Mulvey Irrig. Co. 1, Gueydan, dr clay 127 ft.

VERNON PARISH—Minerals Division of Llano Co., Llano Del Rio 1, 2 mi sw Leesville, dr sn and sh 700 ft.

NEW MEXICO . . . ROCKY MOUNTAIN

Readjustment of Takings Leaves Hobbs Prorated Allowance Unchanged; Ohio Taking Up Salt Creek Line

Staff Correspondent, Casper, Wyoming

Hobbs Busiest in Year With Eight Wells Drilling

Hobbs, New Mexico.—Activity in the Hobbs field is greater than at any time within the past year, with eight operations underway, including two tests in process of completion. This field work is distributed along the north and south portions of the structure, and also the east flank.

Midwest Refining Company has installed three-inch tubing preparatory to testing State 26, NE Section 9-19s-38e, after drilling to 4190 feet, and also Byers 11, NEc Section 4-19s-38e, with a total depth of 4174 feet. This company's Turner 29, NW Section 34-18s-38e, is drilling below 3200 feet after logging top brown lime at 2850 feet, and Terry 11, SE Section 9-19s-38e, is rigging up rotary. Skelly Oil Company is venturing out on the extreme east edge of production in drilling Turner 1, in NW Section 34-18s-38e. One test each is being drilled by Shell Petroleum Corporation, Gypsy Oil Company and Empire Gas & Fuel Company as offsets to the recent extension well on the north end of the structure.

Revised potential production figures compiled by Umpire C. G. Staley after making a re-gauge of nearly every well in the field credits the area with a potential rating of 1,002,434 barrels daily from 157 flowing and pumping wells occupying 134 40-acre units. Ten of these units have two wells on same, and two have three wells, but the average potential only is calculated when a unit has excess number wells. A potential rating of 1,166,757 barrels has been credited to the field. Loss in proration allowance for the field failed to materialize when Atlantic Oil Producing Company made an eleventh hour change in its nominations, cutting same from 8500 to 5500 barrels daily, instead of a proposed 4500 barrels reduction, and Shell Petroleum Corporation readily agreed to absorb the 3000 barrels. This shifting of purchases resulted in the field being allotted 29,500 barrels daily outlet beginning July 1, or a gain of 70 barrels.

Water encroachment at Hobbs has remained constant for some weeks, with 15 wells now listed as showing water with the oil production, and five others have resumed making pipe line oil after pinching the flow. Another pumper was added to the field when Landreth Production Corporation et al's State 1-C, NEc NW Section 6-19s-38e, failed to flow its proration quota because of water. This well pumps for about one-hour twice each day, and is yielding 125 barrels of oil plus eight per cent water.

Elk Mountain Wildcat Has Gas Show; Going Deeper

Rawlins, Wyo.—Showing of gas along with some high grade crude oil has been discovered by Midwest Refining Company's wildcat well on the Elk Mountain structure in Carbon County, southern Wyoming, at 4270 feet. The showing has been mudded off and rotary drilling continued deeper in the belief that larger production will be found in lower horizons. The well at last report was drilling in a second sand which at 4365 feet was dry; a third sand is expected within another 100 feet. If the lower sands do not prove commercial, the well will be plugged back to the first sand. The showings encountered have been so good that there is but little doubt but that a new field has been proved in Wyoming.

Another Well Completed In New Whitlash Field

Chester, Mont.—Another well in the new Whitlash field, northern Liberty County, has found oil production, the Whitlash Petroleum Company having encountered showings similar to those in the discovery well, at 1415 feet. Casing was run and well drilled deeper to 1635 feet where the casing was set, and then drilling continued deeper into the second sand in which the major production is expected. Some observers believe that the well was good for about 25 barrels in the first sand, but this is, of course, only an estimate.

Casper, Wyo.—Work on the repair on the Teapot Dome Naval Reserve, south of the Salt Creek field, was started by Rash, Rathvon & Hogan, the contracting firm to which the Navy Department granted the work on a bid of $17,500 for turnkey job. The work also includes filling in 14 cellars. Other work is under way on the reserve by various contractors.

Dutton Basin Wildcat Shut Down to Erect Tankage

Casper, Wyo.—The wildcat being drilled on the Dutton Basin structure, 65 miles west of here, by Ward Oil & Gas Company is shut down in the base of the Carlisle shale at 2700 feet, waiting for the erection of tankage before drilling into the Wall Creek sands. Some gas is showing and another 100 feet of drilling should put the well in the objective. The first well drilled on this structure last year by Ward Oil & Gas Company found a good showing of oil and gas in what was then believed to be the second Wall Creek sand; it is now believed that this showing came from the Carlisle shale and that the hole had not reached the Wall Creek.

Ohio Sells Salt Creek Production to Midwest

Casper, Wyo.—Ohio Oil Company has contracted to sell all of its crude production in the Salt Creek field to the Midwest Refining Company, and its storage tanks are being connected to Midwest lines and storage. Illinois Pipe Line Company is taking up its 45-mile eight-inch pipe line from the field to Casper; the line was laid in 1932 and supplied storage tanks at Illco and the refineries in Casper. A part of the pipe is to be used in repairs in the Big Horn Basin lines, and the balance is to be stored in Casper.

Pure Releasing Part of Leases in Campbell County

Gillette, Wyo.—A great many of the leases held in Campbell County, Wyoming, by Pure Oil Company, have been cancelled by that company. The land was originally blocked up and leases in 1929 and rentals since then, approximating about $75,000, have been paid, but no drilling has been done. The district was carefully geologized and gone over with geophysical instruments. That the company does not condemn the structure entirely is indicated by the fact that it has retained about half of its leases.

Midway Dome Test Will Be Drilled to Muddy Sand

Casper, Wyo.—Having found the second Wall Creek to be 120 feet thick, and with only small showings of oil and gas, Mutual Oil Syndicate has announced its intention of drilling its test on Midway Dome, 12 miles north of Casper, deeper to the Muddy. It will have as its next objective the third Wall Creek sand; interval between the second and third Wall Creeks is estimated to be about 225 feet. The Muddy sand had a good showing in the discovery well.

New Mexico and Rocky Mountain Field Developments

WYOMING

New Operations

CROOK COUNTY (Redwater Structure)—St. Onge Oil & Gas Co., ne se 20-53n-61w, rig.

Wildcat Drilling Report

(Wells shut down not included)

CARBON COUNTY — Midwest Refining Co., U. P. 27, 11-20-81, coring, preparing to run casing to test, 4363 ft.

CONVERSE COUNTY—John Ackard, se 24-33-72, sd at 2020 ft to refinance. Converse Oil & Gas Co., sw sw 27-33n-72w, set casing.

CROOK COUNTY—St. Onge Oil & Gas Co., ne se 20-53n-61w, rig.

FREMONT COUNTY—Ward O&G Co., 28-34-90, dr 2900 ft. Yellowstone Oil Co., Gabus 1, sw 14-38n-94w, dr 2000 ft. Premier Oil Co., 7-28n-92w, location.

LINCOLN COUNTY—H. C. Harris et al, se 14-21n-117w, dd below 1550 ft.

NATRONA COUNTY—Mutual Oil Synd., Midway 2, sw se 14-36-79. Summit Oil Co., Trevett 1, 21-33-80, dr 1400 ft.

SWEETWATER COUNTY—Vermillion Oil Co., sw se 16-12n-99w, preparing to resume. Hidden Treasure Oil Co., se sw 11-20n-104w, resuming 1720 ft.

UINTA COUNTY—Transwestern Pete Co., Ltd., (Doheny), 6-14n-118, dd 4000 ft. Park City O&G Co., ne nw 16-15n-113w, dr out cement 2968 ft.

WASHAKIE COUNTY — Bales Oil Trust, Brome 1, ne nw 31-48n-90w, dr 1300 ft.

WESTON COUNTY—Julius Peters et al, Weitzell 1, sw nw 30-46-64, dr bel 4300 ft. Gose Synd., ne 28-37n-63w, dr resumed 5050 ft. LeFaivre Oil Synd., nw se 29-45n-68w, plan to resume soon, td 1800 ft.

COLORADO

Wildcat Drilling Report

(Wells shut down not included)

ADAMS COUNTY—Hills Dome Lease Dev. Co., se 27-3s-68w, cemented 4025 ft.

ARAPAHOE COUNTY—McDeb Drlg. Co., Fitzsimmons 1, ne 7-4s-68w, dr sandy shale 6066 ft.

ARCHULETA COUNTY — Oil City Pete Co., Fitzhugh 1, sw 54-33n-13, sd for pipe, gas showing 717 ft.

DELTA COUNTY — Black Canyon O&G Co., 2, lot 12, 5-15s-9e, installing larger rig, 330 ft.

EL PASO COUNTY—Gulf States Corporation, Carson 2, ne 10-16s-66w, dr plug 2000 ft.

GRAND COUNTY—Oil & Mineral Lands, Inc., McElroy 1, se sw 14-2n-81, resum at 618 ft.

LA PLATA COUNTY—McGarr Pete Co.'s Pinon Mesa 1, ne 34-33n-12, rig up. Phipps et al, sw 9-33-13, td 520 ft.

LARIMER COUNTY—Mayer et al, Reed 1, nw 28-4-60, repairing rig, td 3800 ft.

LINCOLN COUNTY—Eastern Colorado Oil Corp., State 1, nw 36-14s-57w, sidetracking, td 3449 ft.

MONTROSE COUNTY—Uncompahgre O. & G. Co., Vandemark 2, 27-50n-10, td 800 ft.

MONTEZUMA COUNTY—Oliver, Downey, Smith et al, nw se 31-36-17, spudding.

PARK COUNTY — South Park O&G Co., Milligan 1, se 13-8s-76w, cem cave and sd 2912 ft. South Park Oil Co., Esche 1, ne 5-9s-76w, sd 2470 ft.

RIO BLANCO COUNTY—California Co., Raven 1, se 20-2n-102, dr in red beds 5475 ft.

WELD COUNTY — Tulsa-Ft. Morgan Oil Co.'s Anthes 1, ne ne 24-8n-59w, dr 2400 ft. Weld Royalties Co., se 29-9n-61, sd 98 ft. Ohio Oil Co., Butters 1, 7-6n-60w, cem casing 3500 ft. Manning & Terry, Niles 1, ne ne 13-6n-61w, dr 4000 ft.

WASHINGTON COUNTY—Middlemist Oil Co., et al, sw se 14-4s-56w, resuming at 1510 ft.

NEW MEXICO

New Operations

VALENCIA COUNTY — Western Natural Resources No. 1, 15-2n-5w, build road and mvg in.

Wildcat Drilling Report

(Wells shut down not included)

BERNALILLO COUNTY—Norrins Realty, Pajarito Grant 1, 22-9n-1e, fsh cas 1295 ft.

CHAVES COUNTY — Warman Oil Trust, Evans 1, 15-14s-25e, sd to finance 1433 ft. R. D. Compton, sw se 20-10s-24, spd and sd 153 ft.

DE BACA COUNTY—Montgomery et al, Wood 1, sw 6-4n-20e, fsh tools 4662 ft. Landowners Oil Co., State 1, ne 16-1s-27e, dr 4925 ft.

DONA ANA COUNTY—Middle States O&G Co., Boretzi 1, 14-26-5e, rigged.

GUADALUPE COUNTY—N. M. Prod. & Ref. Co., McMillan 1, 24-5n-16e, wait for orders 4507 ft.

HARDING COUNTY—Carbon Dioxide Corporation, Tinsley 1, 31-21n-31, lcn.

LEA COUNTY—Baker Oil Co., Inc., sw nw 15-13s-33e, contract let.

LUNA COUNTY—Angelus O&M Co., State 3, se 30-21-10, try to reset casing 6171 ft.

RIO ARRIBA COUNTY—Governador Oil Co.'s 1, se 15-29n-7w, dr 2070 ft.

ROOSEVELT COUNTY—Peterson Oil Co., Good 1, se ne 32-5s-30e, rig up.

SAN MIGUEL COUNTY—Cabra Springs O&G Co., Thompson 1, ne 21-12-22, changing to steam, td 2540 ft.

VALENCIA COUNTY — Western Natural Resources, No. 1, 15-2n-5w, building road and moving in.

MONTANA

Wildcat Drilling Report

(Wells shut down not included)

BROADWATER COUNTY—Capitol O&G Co., nw 7-8n-1e, dr bel 2200 ft.

CARBON COUNTY—Corbett Royalty Co., sw se 1-6s-23e, sd 1150 ft. Jack Creek O&G Co., se 15-7s-23e, rig up. Midland Oil Co., nw 24-6s-23e, sd 280 ft.

CARTER COUNTY—E. T. Moorehead, sw 34-4s-57w, wait for 12½ inch at 350 ft.

CASCADE COUNTY—Buscher & Cassady, Johnson 1, se 19-22-3e, wait for Merz test, td 1387 ft. Charles Merz et al, Sheffels 1, nw 4-21-4e, dr 1620 ft.

FALLON COUNTY—H. W. MacDonald's 1, sw 28-8n-60e, dr bel 1900 ft.

FERGUS COUNTY—Melton Corporation's 1, sw 24-21n-17e, dr and carry 8¼-inch 3150 ft. Landheim-Romunstad 2, ne 3-17n-20e, td 2600 ft.

GALLATIN COUNTY — Montana Gas & Pete Corp., Adams 1, 35-1n-2e, refinancing, td 1650 ft.

GLACIER COUNTY—Finn et al, McLellan 1, nw se 12-34-6w, rig up. Blackfeet Petroleum, ne 28-36n-12w, dr with rotary 2900 ft. Jeffries et al, se ne 17-31n-12w, to move in standard tools to dd, td 2980 ft. Tarrant et al, Haglund 1, nw se 13-34-6w, showing estimated 100 bbls 2850 ft. Browning Development Co., Reickhoff 1, ne 3-34-6w, rig up.

GOLDEN VALLEY COUNTY — Golden Valley Oil Co., 2-6n-22, may abandon 3335 ft.

LIBERTY COUNTY—Whitlash Petroleum Co., Hicks 1, nw ne 26-37-4e, completing, good for 20 bbls (estimated) at 1848 ft. Oiens et al, Hicks 1, se ne 26-37-4e, repairs 300 ft. R. C. White et al, Hicks 1, ne ne 27-37-4e, dr 1100 ft. Teter & Strawn, Shafer 1, sw sw 24-37-4e, rig. Postlewaite et al, sw ne 26-37-4e, dr 1200 ft. Postlewaite for W. D. Craig et al, se ne 34-37-4e, location. A. E. Crumley, Strode 1, nw ne 35-37-4e, oil showing 1415 ft. Northland O&G Corp., Yurman 1, sw 32-33-5e, prep to resume 2815 ft. Peoples O&G Co., nw 17-36-6e, dr 2100 ft.

MUSSELSHELL COUNTY — Minnesota-Flatwillow Pete Co.'s 1, sw 7-11-31e, dr 2750 ft.

PHILLIPS COUNTY—St. Cloud O&G Co., sw ne, 20-34n-24e, dr 500 ft.

PONDERA COUNTY—Bell-Adams, Venetz 1, ne 31-27-4w, dr water well, oil test standing 920 ft.

SWEETGRASS COUNTY—Shoshone Consolidated Oil Co., nw nw 23-2n-15e, run 4-inch to s.o.w. to resume 5790 ft.

TETON COUNTY — California Co.'s Sullivan 1, nw 34-28-7, dr bel 3360 ft. Earl Oil Co., ne se 22-22n-8s, drilling resumed 3860 ft.

TOOLE COUNTY—Oregon Syndicate, se 20-36-2e, try to pull casing to plug back from 2580 ft. Texas Co.'s International Land 1, se sw 6-36-4w, dr below 2000 ft. Texas Co.'s Peterson 1, 22-36n-5w, dr bel 300 ft.

VALLEY COUNTY—Opheim O&G Co., ne 28-37n-38e, mvg in.

LOUISIANA FIELDS

Central Louisiana Strip Considered Prospect Since Late Development in East Texas; Zwolle 121 Active.

Staff Correspondent, Shreveport, La.

De Soto Parish Wildcat Completed as Gas Well

Shreveport, La.—Standard Oil Company of Louisiana and Pelican Natural Gas Company's J. H. Sutherlin 1, SE SW Section 19-12-14, DeSoto Parish, about five miles south of the Holly oil field, was completed last week, at 3003 feet, in Tokio, gauging 11,700,000 cubic feet of dry gas with rock pressure of 1400 pounds.

This test is on what is known as the Sutherlin structure which is an offshoot to the Spider structure to the south. Elevation of the test is 248 feet. The well had shown an estimated three million cubic feet of gas at 2784 feet when tested.

Conroe Results Make New Louisiana Area Look Good

Shreveport, La. — DeRidder Development Company's McMahon 1, NE NW Section 33-2s-9w, Beauregard Parish, between the Gulf Coastal area and the Sabine Uplift, cemented 6⅝-inch casing at 1100 feet during the last week after a core showed sand under shale at 1100-1105 feet.

This test is 500 feet west of a test drilled to 1242 feet in 1905 which showed oil in the Catahoula formation, but later was abandoned as a salt water hole.

This test is in an area of Louisiana which will probably see considerable activity in the next year or two, as a sequel to the recent developments in the Conroe, Texas, field. Between Conroe and the Louisiana line south of the Angelina-Caldwell Flexure and north of the Gulf Coastal area, the base of the Jackson at around 1275 feet in Jasper County, Texas, yielded some oil at 1275 feet. In the extreme eastern part of Louisiana bordering the Mississippi River, A. C. Glassell several months ago completed a commercial gasser at the base of the Jackson at 1436 feet in Pittsfield Plantation 1, Section 41-8n-10e, and this development was followed by much geophysical and geological activity across this "waist-line" of Louisiana as far as the Texas line.

In a small oil field uncovered several years ago in LaSalle Parish known as the White Sulphur field which had a combined daily yield of 80 barrels of oil from five wells the pay was found at around 800 feet at the base of the Jackson. Comparatively few wells have been drilled in this belt extending across the state. Several tests drilled in Grant Parish showed oil in the Cockfield and Jackson. Some geologists believe that farther down the slope of the beds may be found an accumulative condition for oil production.

Vernon Parish, just south of the Sabine Uplift, probably will get considerable attention should such a campaign develop. Base of the Jackson in tests drilled in that parish is found around 2500 feet. One test is drilling there now, Llano Cooperative Colony's Fee 1, NW NE Section 34-2n-9w, last week drilling sandy shale at 1060 feet.

Eleven More Locations at Zwolle; 121 Operations

Shreveport, La.—For the second consecutive week 11 new locations were announced in the Zwolle field, bringing the total of tests there to 121, as of July 6. Ten of the week's new locations were in the "hot spot" of production southwest of the town of Zwolle. Production in that part of the field is in Sections 1-, 2- and 3-7-13, with most of the play now being to the west into Sections 4- and 5-7-13, following several dry holes to the north of production across the township line in township 8, range 13. However, two of the week's new tests were in Sections 34-8-13 and 35-8-13.

Coats Petroleum Company's S. S. Martinez 2, NW NE SE Section 3-7-13, completed June 29, was later gauged at 750 barrels flowing through a 7/16-inch choke with a back pressure of 125 pounds. It has an open flow capacity estimated at 3000 barrels daily, at total depth of 2265 feet.

Southland Drilling Company's F. Martinez 2, Section 34-8-13, was dry and abandoned at 2527 feet in chalk.

An outside test east of production in the southeast Zwolle field was abandoned as a dry hole during the last week when State Production Company's Davis 1, Section 17-7-10, was abandoned as a dry hole at 3102 feet. Six-inch casing had been cemented at 2638 feet and base of the Zwolle chalk was logged at 2990 feet. The chalk drops off rapidly to the southeast of the Zwolle east field, it appears, from tests drilled in that area.

In the southeast field proper Service Drilling and Royalty Corporation's Gardner A-2, Section 12-7-11, was abandoned at 2527 feet.

Two Wells Encourage Deep Drilling in Zwolle Area

Shreveport, La.—The second test in the Zwolle field of Sabine Parish drilled to the oolitic lime of the Glen Rose, during the week ending July 6, showed oil in the oolitic lime, this being Loring Oil Company's Bowman-Hicks 18, SW NW Section 15-7-12, Sabine Parish, from which was recovered a five-foot core of this formation showing oil, at total depth of 5279 feet; elevation is 264 feet.

This well had run into a heavy salt water flow of 172 degrees at 5272 feet requiring three carloads of baroid to shut it off. Returns were lost after the core was brought out.

This test is eight miles southeast of R. L. Gay, Trustee's Long-Bell Lumber Company A-1, NW NW Section 10-8-13, which logged Glen Rose at 4250 feet; elevation is 265 feet. The Loring well logged the Glen Rose first at 4690 feet. Gay's test recovered an eight-foot core of oolitic lime showing oil at 4772 feet and casing was set but when plug was drilled salt water appeared. The well as deepened and is still drilling having attained on July 6 a depth of 6007 feet in lime and shale, the deepest hole ever sunk in Sabine Parish.

The fact that the two tests drilled to the Glen Rose in the Zwolle field have both shown oil in the oolitic lime of this age, which produces gas in the Rodessa field of Caddo Parish, and in the Sugar Creek gas field of Claiborne Parish, has increased interest in the possibilities of deeper production in Zwolle where at present oil production is found in a marl and chalk formation overlying the Blossom sand.

Sabine Parish Test Finally Abandoned After 2 Years

Shreveport, La.—A test which was in process of drilling for over two years was abandoned during the last week when J. J. Kean junked hole in Belton 1, NW SE NE Section 31-9-13, Sabine Parish, five miles northwest of Zwolle production, at 3128 feet, three feet in the upper Cretaceous; elevation was 232.7 feet.

Louisiana Field Developments

Completions

Company, Well and Location	Initial Bbls.	Initial Depth
DE SOTO PARISH—		
Standard Oil Co. of La. & Pelican Nat. Gas Co., J. H. Sutherlin 1, 19-12-24	¶11¼	3003

SABINE PARISH—
Coats Pet. Co., S. S. Martinez 2, 3-7-13 . ..... 750 2265
J. J. Kean, Belton 1, 31-9-13..... † 3128
Service Drilling & Royalty Co., Gardner A-2, 12-7-11 ..... * 2850
Southland Drilling Co., F. Martinez 2, 34-8-13 ..... * 2527
State Prod. Co., Davis 1, 17-7-10.. * 3102

New Operations

CADDO PARISH—Louanna Oil & Gas Co., Inc., Shreveport, Cushman 1, 33-19n-16w, 1320 ft n 660 ft e sw cor sec.

CALCASIEU PARISH—Gulf Refg. Co. of La., Houston, Texas, F. H. Gray 6, 33-10s-12w, 875 ft w 520 ft s cen of sec.

DE SOTO PARISH—J. M. Bridges, Pleasant Hill, J. H. Joyner 1, 33-11-12, cen nw¼ nw¼ sec.

JEFFERSON DAVIS PARISH—Little City Oil Co., Inc., Jennings, Jennings Norwood 1, 44-9s-3w, 1975 ft n 675 ft e sw cor. sec.

SABINE PARISH—States Prod Co., Shreveport, Sabine Lbr. Co. 1, 3-7n-13w, 325 ft n 100 ft w se cor nw¼ sw¼ sec.

Wildcat Drilling Report

(Wells shut down not included)

BEAUREGARD PARISH — DeRidder Dev. Co., McMahon 1, ne nw 33-2s-9w, cemt 6⅝ cas 1100 ft.

BIENVILLE PARISH — Black Lake Dev. Co., Frank Halston 1, se se 17-18-16, dr shale 1650 ft.

CADDO PAIRSH—Jno. W. Moffitt, Cynosure 1, 36-18-15, lcn.

CLAIBORNE PARISH—Leue Oil Co., Kinder 1, 2-21-7, owdd, co to deepen, td 3500 ft.

DESOTO PARISH—J. M. Bridges, Joiner 1, nw nw 33-11-12, sp 10-in cas 98 ft. E. T. Oakes, Johnson 1, 30-13-15, core 3709 ft. DeSoto Dev. Co., Nickie 1, 7-13-12, rig. S. A. Guy, Dowling 1, 31-14-14, top chalk, 1650 ft, dr shale 2700 ft.

GRANT PARISH—Security Pet. Corp. Swope 1, 16-9-1e, wosr, td 1585 ft. Robichaux et al, Bradford 1, 16-9-1e, rig.

NATCHITOCHES PARISH—Sabine Bayou Dev. Co., Bodcaw Lbr. Co., 1, sw sw 9-12-5w, rig. Southland Drilling Co., Ross Olive 1, 10-9-10, sd below 2000 ft. H. W. Perritt, Brown Lbr. Co. 2, 29-8-9, sd 2690 ft. Cook 1, 3-8-9, top chalk 2500 ft sd 2620 ft. Rains et al, Beard 1, 8-8-10, dk. Texana Oil Co., Clarke-Morse 1, 23-5-6w, co td 2504 ft. R. A. Keator, Stephens 1, 25-10-6w, sd 1700 ft.

OUACHITA PARISH—Wilson & Mitchell, W. L. Williams 1, 5-16-1e, sd 3480 ft.

RED RIVER PARISH—C. F. Davis, Peterson 1, sw nw 12-14-11, dk pat. Petroleum Ind., Inc., Madden 1, sw ne 21-14-10, cemt 10-in 109 ft.

SABINE PARISH—R. L. Gay, Tr., Long-Bell A-1, nw nw 10-8-13, core lime and shale 6007 ft. J. H. Askew, Sabine 1, ne nw 9-7-13, bailing small show oil, td 2455 ft. Loring Oil Co., Bowman-Hicks 18, 15-7-12, cored 5 ft oolitic lime with show oil, lost returns, td 5279 ft. (Glen Rose). King, Tr., Davis 1, 29-7-11, lcn. State Prod. Co., Davis B-1, 17-7-10, dk. G. E. Jordan, Dew 1, sw se 34-8-11, dk pat. R. E. Davidson, Davis 1, 28-7-11, dk. S. A. Lane et al, DeKeyser 1, nw ne 23-7-11, tested dry 2819 ft wo. Supreme Oil Co., Pruitt 1, se sw 30-8-11, rig. A. F. Tarver, Stoker 1, 34-8-10, top marl 2823 ft, cemtd 6-in cas 2827 ft. Howard Russell, Porter 1, se se 7-7-11, cemtd 6-in cas 2352 ft. J. H. Reeves, Sabine Bank 1, ne sw 28-8-11, 6-in cas 2254 ft arr test, td 2500 ft. A. A. Trammell, Sepulvedo 1, nw ne 5-7-13, rig. J. B. Hughes, Stille 1, 36-8-11, sd for water, 1957 ft. W. S. Smith, Hamilton 1, ne ne 32-8-11, dk. Langford et al, Sabine 1, se ne 8-7-13, dk. Williams & Spiers, Williams 1, 31-8-10, cemtd 6-in cas 2332 ft. A. D. King, Tr., Germain 1, 7-7-10, dry wo 2685 ft. Southland Drilling Co., Frost Ind. 1, 13-9-11, sd around 2000 ft. Wurtsbaugh & Torrans, Peterson 1, sw se 26-8-13, dk pat. Otis Roberts, Sabine 1, sw ne 5-7-13, lcn.

VERNON PARISH—Llano Coop. Colony, Fee 1, nw ne 34-2n-9w, dr sandy shale 1060 ft.

WINN PARISH—Tex Lloyd, J. B. Milam 1, nw sw 28-13-5, lcn.

ARKANSAS FIELDS

Miller County Drillers Announce Two New Tests

El Dorado, Ark.—Fitzwater and associates, who recently cemented seven-inch O.D. casing at 2919 feet, after reporting a two-foot sand core saturated with oil at 2919-20 feet, in E. L. Beck 1, SW SE Section 35-15-26, Miller County, southwest Arkansas, during the week ending July 6 announced two new locations for Miller County, C. J. Norsen 1, SE SW Section 20-15-27, and E. A. McCowan 1, NW SE Section 22-15-28.

Plug has not yet been drilled in E. L. Beck 1.

Arkansas Field Developments

New Operations

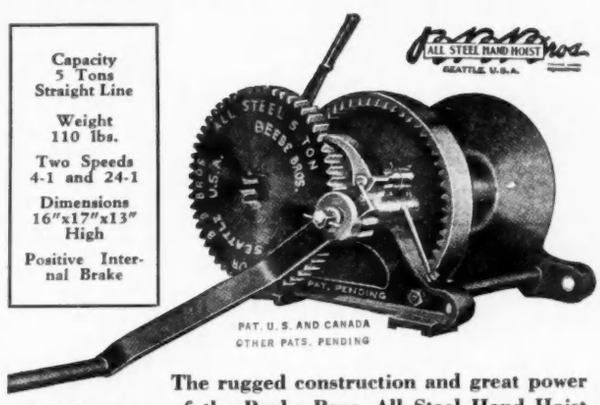
MILLER COUNTY—Fitzwater et al, C. J. Norsen 1, se sw 20-15-17, lcn; E. A. McCowan 1, nw se 22-15-28, lcn.

Wildcat Drilling Report

(Wells shut down not included)

DREW COUNTY — Cooperative Dev. Co.,

Rugged and Powerful



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The rugged construction and great power of the Beebe Bros. All Steel Hand Hoist permit its use for innumerable jobs around the oil fields. It is a decided advantage to have this portable machine which is quickly available at any point needed. An unusual feature is the Positive Cam Action Internal Brake with which a load up to 5 tons straight line can be lowered or held in position. Operates at two speeds, 4-1 and 24-1, and is equally satisfactory for light or heavy loads. You can't tire a Beebe Hoist and a Beebe Hoist won't tire you.

For Sale by

THE NATIONAL SUPPLY COMPANIES

Ogles 1, 35-13-5, cored sandy shale 2351-58 ft, dr 2376 ft.

HOT SPRINGS COUNTY—Starr Oil Co., Cunningham 1, 11-5-16, sd 1340 ft.

LINCOLN COUNTY—L. B. Cook, Tr., McGehee Pltg. Co., 5-8-7, fsh ds, td 2800 ft.

LITTLE RIVER COUNTY—Harrell et al, Taafe 1, sw nw 25-12s-32w, rig.

MILLER COUNTY—Fitzwater et al, E. L. Beck 1, sw se 35-15-26, top red beds 2812 ft, claim oil sand 2919-20 ft sandy shale strks sand 2920-26 ft, 7-inch OD cas 2919 ft, td 2926 ft. C. J. Norsen 1, se sw 20-15-27, lcn. E. A. McCowan 1, nw se 22-15-28, lcn.

OUACHITA COUNTY—Chas. Steele, Anderson 1, 36-12-18, sp 10-inch 63 ft. Copenhaver et al, Berg 1, 13-15-17, wosr, td 2208 ft.

PIKE COUNTY—E. R. Henderson, East 1, 13-9-23, rig.

ST. FRANCIS COUNTY—Field & Jones, F. M. White 1, 1-4n-2e, dr shale and gumbo 3250 ft. E. R. Henderson, Britton 1, ne nw 1-4n-1e, dr sand small show gas, 1370 ft.

SCOTT COUNTY — Heavener O&G Co., Reser 1, 36-4-26, fsh ds, td 1436 ft.

WASHINGTON COUNTY—Chase & Rogers, Cunningham 1, sw ne 14-15n-32, sd 1725 ft. C. H. Willoughby, Jones 1, 34-16-30, sd 1870 ft.

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SOUTHEASTERN STATES

Alabama Test Abandoned on Account of Bad Hole Before Reaching Objective, Rig to New Location.

Mississippi Has Extensive Wildcatting in Prospect

Jackson, Miss.—Although the Jackson gas field with 90 gas producers is more or less marking time indications are that considerable wildcatting is contemplated in various parts of Mississippi during the next several months.

Sydney Reagen and R. E. Wood, making headquarters at Gloster, Mississippi, announce completion of a 35,000-acre block of leases in Amite County, southwest Mississippi, centering in township 3n-2e. They plan to start a test by August 1.

In Sunflower County, in the Delta section, several miles north of Indianola, Fred E. West and associates have blocked 40,000 acres, for the consideration of a test well by January 1, 1933. J. Y. Snyder, past president of the American Association of Petroleum Geologists, and Dr. A. F. Crider, former Mississippi state geologist are understood to have done the geological work. The marker used was the Claiborne-Jackson contact.

Army Water Well Failure Encourages Alabama Test

Mobile, Ala.—Danciger Oil & Refining Company is planning an early test on a 12,000-acre block in Baldwin County, southwest Alabama, on the Gulf Coast, immediately east of Mobile County but across Mobile Bay. The location probably will be in the vicinity of Fort Morgan. The block centers in township 9 south, ranges 2 and 3 east. The test will go to 3500 feet.

A water well drilled to 1513 feet in 1909 by the War Department at Fort Morgan was abandoned because of the gas and oil which showed up at 1480 feet. Some who saw the show estimated that 50 barrels of oil came out of the well.

The log of this test follows:

One to 30 feet, surface sand; 30 to 32 feet, soft, blue mud; 32 to 87 feet, white sand; 87 to 100 feet, soft, blue mud; 100 to 112 feet, coarse sand; 112 to 120 feet, soft blue mud; 120 to 169 feet, coarse sand; 169 to 175 feet, small gravel; 175 to 255 feet, very tough mud, blue with oyster shells; 255 to 277 feet, sand with shells; 277 to 321 feet, very tough mud with oyster shells; 321 to 322.5 feet, very hard rock; 322.5 to 357.5 feet, fine sand, blue with shell; 357.5 feet to 523 feet, tough blue gumbo; 523 to 570 feet, sand, blue, gray with fine shell, coarse and hard; 570 to 574 feet, sand and fine shell; 574 to 753 feet, close gray sand, salt water, traces of oil and gas; 753 to 782 feet, blue gumbo with boulders; 782 to 1060 feet, sand and shell, close hardpacked, carrying salt water; 1060 to 1061 feet, rock; 1061 to 1076 feet, gumbo, blue with shells; 1076 to 1079 feet, rock; 1079 to 1089 feet, gray sand, no water; 1089 feet to 1121 feet, blue tough gumbo, traces of oil and gas; 1121 to 1124 feet, hard rock; 1124 to 1204 feet, pebbly sand with small gravel; 1204 to 1244 feet, gumbo with boulders; 1244 to 1252 feet, rock, not very hard; 1252 to 1290 feet, soft shale and gravel; 1290 to 1330 feet, blue sand; 1330 to 1350 feet, shale; 1350 to 1352 feet, rock; 1352 to 1370 feet, blue sand; 1370 to 1378 feet, small gravel; 1378 to 1513 feet, gumbo with small gravel, strong gas pressure at 1480 feet.

Hatchetigbee Anticline Test Abandoned at 4533

Jackson, Ala.—Tidal Oil Company, Danciger Oil & Refining Company and Ramsey Petroleum Company's Everett & Boykin 1, NE SE Section 33-6n-2e, Clarke County, Alabama, the first test drilled on the Jackson Fault of the Hatchetigbee Anticline, was abandoned during the week ending July 6, as a dry hole at 4533 feet in Tuscaloosa sand; elevation was 65 feet.

Caving of the hole put it in such bad condition that it was decided to abandon at that depth although it had been planned to go deeper. The Tuscaloosa was logged at 1738 feet and on the basis of this contact checked 1855 feet higher than any other test ever drilled on the Hatchetigbee. The rig used on this location will be moved off to another location in southwest Alabama, probably in Baldwin County, where Danciger Oil & Refining Company is planning a test to 3500 feet.

Ohio Making Progress In South Alabama Drilling

Mobile, Ala.—Ohio Oil Company is making rapid progress on its deep test, Bethel 1, NW SW NE Section 34-3s-2w, Mobile County, which was spudded recently. After setting three joints of 20-inch casing, the test had 13⅜-inch casing cemented at 775 feet and later was reported drilling at 2000 feet. The test will be taken to 5500 feet immediately and later possibly to 7000 feet.

Southern States Field Developments

Completions

ALABAMA

Company, Well and Location	Initial Production Bbls.	Depth
CLARKE COUNTY (Jackson)—		
Tidal Oil Co., et al, Everett & Boykin 1, 33-6n-2e	*	4533

Wildcat Drilling Report

MISSISSIPPI

HINDS COUNTY — Miss.-Minn. Oil Co., Edwards Land Co. 1, sw ne 23-6n-4w, dr 3150 ft (Wilcox). Majestic O&G Co., Elton Lbr. Co. 1, 10-3n-3e, lcn. abn.

LAMAR COUNTY (Purvis) — Stauffer & Kouri, Trs., Bond 1, se ne 18-2n-14w, dr lime 1840 ft.

LOWNDES COUNTY — Lowndes County O&D Co., Carr Est. 1, ne nw 34-17-16, dr red shale 1900 ft.

MONROE COUNTY—P. J. McAlpine et al, Chas. Rye 1, se nw 22-15s-17w, 10-inch 580 ft, dr 950 ft.

NEWTON COUNTY — Dalton Dev. Co., Majure 1, se se 25-6n-11e, elev 358.7 ft, sd 1510 ft sandy shale.

STONE COUNTY—Hercules Sulphur Expl. Co., Lang 2, sw sw 28-3s-11w, sand 1971-92 ft, setting 6⅝ cas, td 1992 ft.

ALABAMA

LAMAR COUNTY (Vernon)—McAlpine et al, Gardner 1, nw nw 22-15s-16w, arr set 6⅝ cas 2617 ft.

MOBILE COUNTY—Ohio Oil Co., Bethel 1, nw sw ne 34-3s-2w, cemtd 20-inch cas 63 ft, cemtd 13⅜ cas 775 ft, dr 2000 ft. J. C. Prine et al, M. & O. Ry. 1, se ne sw 33-4n-2w, 12½ cas 240 ft, dr sand (Miocene) 967 ft.

WASHINGTON COUNTY — South Ala. O&G Co., St. Stephens A-1, 26-7n-1w, dk.

TENNESSEE

CHESTER COUNTY—Gilmore et al, Scott 1, top Eutaw 1045 ft, 8-inch cas 1195 ft, top hd lime 1200 ft, dr hd lime 1726 ft.

FLORIDA

WALTON COUNTY—Calumet Co., Walton L. & T. Co. 1, se ne 7-1n-17w, dk pat. Oil City Corp., Walton L. & T. Co. 1, ne nw 12-1n-19w, dr sand 5160 ft (Eutaw).

EASTERN STATES

Eastern States Field Developments

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
ALLEGHENY COUNTY—		
Henry Shaffer, Shaffer 3	*	2112

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
CABELL COUNTY—		
Murts Creek Gas Co., Mt. Terrace Land 1	¶1	3140
CALHOUN COUNTY—		
Walter H. Bickel, Bickel 1	¶¼	....
LINCOLN COUNTY—		
United Fuel Gas Co., Veikers 1	¶¼	2145
Cambridge Gas Co., Mullins 2	¶¼	2441
MONONGALIA COUNTY—		
Henry L. Tennant, Wise & Tennant 3	¶¼	3600

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
ASHLAND COUNTY—		
G. E. Heinrick & Co., Howe 2	*	2424
HOLMES COUNTY—		
H. Garver, Garver 1	¶¼	590
KNOX COUNTY—		
H. E. Perkins, Simpson 1	*	2641
LICKING COUNTY—		
Earl Bros., Georgette 1	4	701
Whitmer & Clay, Martin 4	¶1	2768
MEDINA COUNTY—		
F. Bernhard & Co., White 2	*	474
Edson & Co., Shaw 25	*	397
Curtis & Eakin, Brown Jr. 7	*	380
MEIGS COUNTY—		
Joseph Rubin, Chapman 1	¶¼	800
Ohio Fuel Gas Co., Genheimer 2	¶½	477
MUSKINGUM COUNTY—		
The Pure Oil Co., Scott-Hammond 2	¶¼	4175
The Atha Co., Taylor 1	20	3176
PERRY COUNTY—		
Allegheny Oil Co., Longstreth 8	3	1212
STARK COUNTY—		
East Ohio Gas Co., Strouble 3	¶1¼	4426
Ohio Fuel Gas Co., Hitz 2	¶1½	....
TUSCARAWAS COUNTY—		
Hopewell Oil & Gas Co., Daton 1	25	3418½

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
HARDIN COUNTY—		
Bert Sheldon, Bush 1	¶¼	1339
Trager Hrs., Fee 4	1	1366

KENTUCKY

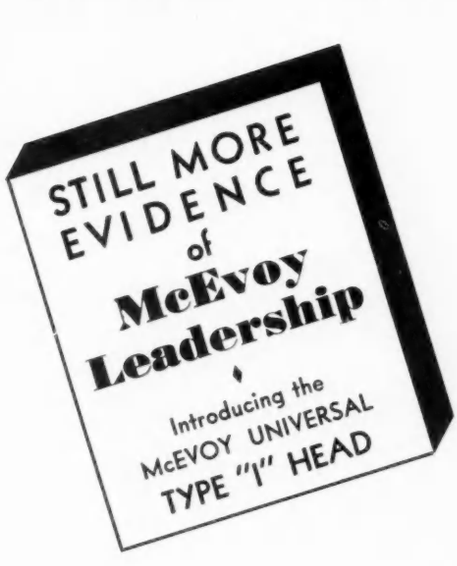
Company, Well and Location	Initial Production Bbls.	Depth
DAVIESS COUNTY—		
Breener & Adams, Jackson 5	25	607
Brenner & Adams, Jackson 6	25	605
Ellis & Ashby, Dora Cooper 4	100	630
OHIO COUNTY—		
Carpenter & Frost, Big Sinking 1	60	....
Farmer & Co., Rance Wilson 1	40	....
Creech & Co., Logsdon 1	50	....

MICHIGAN

Company, Well and Location	Initial Production Bbls.	Depth
MIDLAND COUNTY—		
G-Lee-P-Oil Development 1	75	....
T. K. Buzzard, Simmons 1	2	....

SET WITH

SAME ELEVATORS



This head is a modification of the McEvoy Type "G" Head, which has been so popular in East Texas.

The outstanding advantages of the Type "I" Head are:

1. Use same elevators for landing as for running tubing: not necessary to remove elevators from bails, and no danger of bail slipping off and causing damage.

2. Valve may be on top connection while landing as a safety provision.

3. The screwed hold-down cap is much stronger, easier and quicker to make up than a flange head with bolts. It is not necessary to position bolt holes, which is usually very troublesome.

4. The sealing is obtained with hydraulic packing against the bowl. IN CASE OF FIRE and the packing should burn out, the head WILL NOT LEAK, for then a GROUND SEAL ring is caused to act by the WEIGHT OF THE TUBING or by screwing the cap down.

5. Interchangeable with standard McEvoy line. Uses same body and cap as Types "G", and "J" Heads.

6. Tested to 2000 lbs. cold water, but for those who want to be shown, we will test to higher pressure.

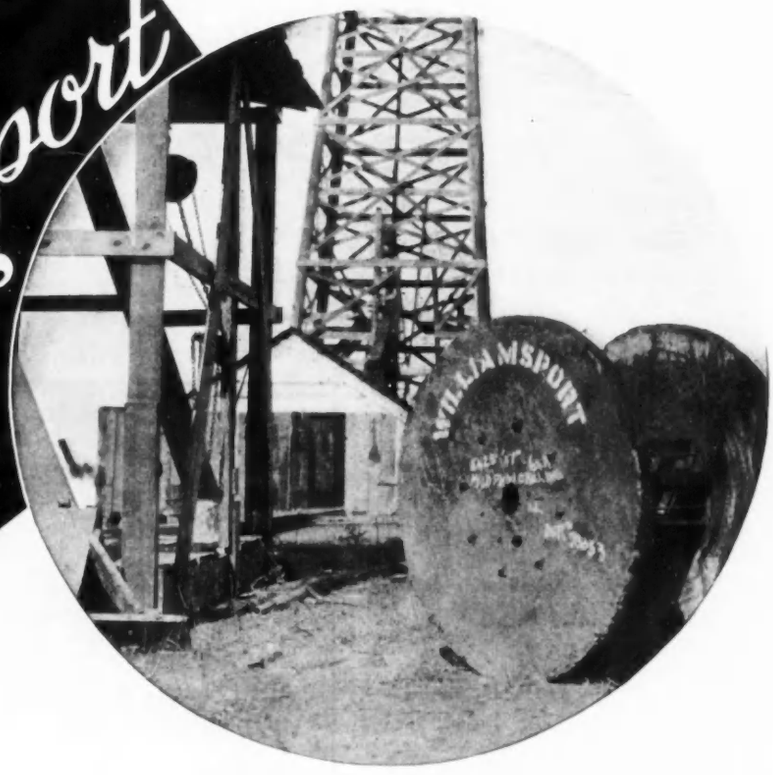
Compare McEvoy QUALITY AND RELIABILITY with competitors, and see the difference. See us or your supply house for full information.

J. H. McEVOY & COMPANY

Established 1906

TEXAS AVENUE AND MILBY STREET — HOUSTON, TEXAS

Use Williamsport wire lines



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While the industry has been taking a vacation — our engineering department have made vastly greater advances towards the perfection of lines now required by the oil industry.

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Arkansas City, Kan.	Electra, Texas	Maud, Okla.	Seminole, Okla.	Tulsa, Okla.
Blackwell, Okla.	Houston, Texas	Oklahoma City, Okla.	Shidler, Okla.	Wichita Falls, Texas
Borger, Texas	Hobbs, New Mexico	Odessa, Texas	Shreveport, La.	Wink, Texas

Williamsport

WIRE ROPE COMPANY

Main Office and Works: Williamsport, Pa.
General Sales Offices: 122 S. Michigan Ave., Chicago, Ill.

New Equipment for the Field

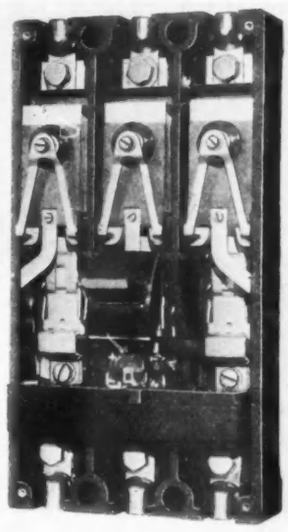
MACHINERY - TOOLS CATALOGS - BOOKS

▼ ▼ ▼

1. Circuit Breaker

WESTINGHOUSE ELECTRIC & MANUFACTURING CO.

Westinghouse Electric & Manufacturing Company, Pittsburgh, Pennsylvania, announces the AB "De-Ion" circuit breaker featuring the single closing handle, mechanical-trip-free, common trip, inverse-time overload, and instantaneous trip on short circuits.

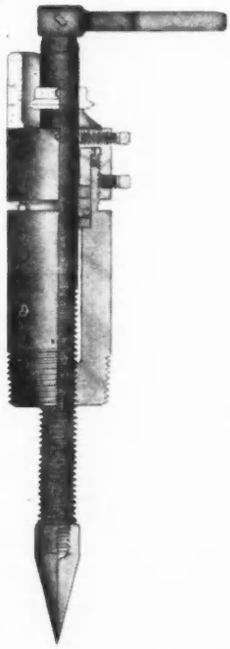


The breaker uses the De-Ion principle of arc extinction for the replacement of open knife switches and air circuit breakers within their rating. They are made for low voltage, 50-225 amperes, 250 and 600 volts alternating current, and 125 and 250 volts direct curent, and are available in one, two, three and four poles.

2. Needle Valve Assembly

OIL CENTER TOOL COMPANY

Oil Center Tool Company, Inc., 924 Adele Street, Houston, Texas, announces a new Type D needle valve assembly designed to screw in any standard A.P.I. tee or cross, with a plain choke bean or quick-change choke bean may be used opposite.



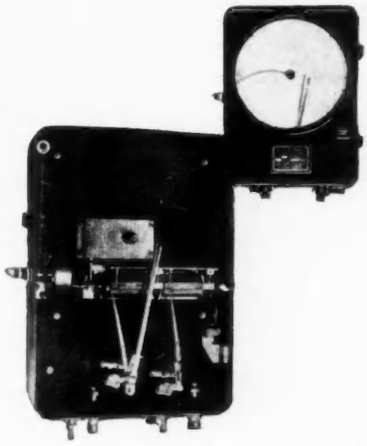
The Type D needle valve is graduated in one-sixteenth inches. The indicator is set opposite zero when valve is closed, and then automatically records the amount of opening when the valve is opened. The valve may be used with a choke bean of any diameter, or with a bean having a full opening regulated by the needle valve. Using either a full opening or a limited diameter choke bean, the well may be shut in with the needle valve, saving wear and tear on the master gate valve.

Type D needle valve is made in all standard sizes.

3. Metric Integrating Meters

AMERICAN METER COMPANY

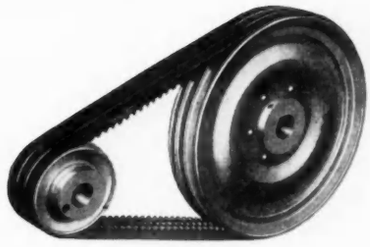
American Meter Company, 105 West 40 Street, New York, announces a line of metric integrating orifice meters which are equipped with integrators that give a totalized indication of the quantity that has passed through the orifices for all weights of flow and for all variations of pressure. The instrument can be adjusted and recalibrated in the field with a simple set of instructions furnished by the manufacturer.



Inside view of orifice meter case with chart dial removed.

4. V-Pulleys

THE DAYTON RUBBER COMPANY



The Dayton Rubber Manufacturing Company, Dayton, Ohio, announces a new line of "Day-Steel" single and multiple V-groove pulleys for use with Dayton Cog-Belts, for ratings of 7½ horsepower and below.

These pulleys are light in weight, making them suitable for machines requiring smaller horsepowers. They are accurately formed from heavy gauge pressed steel for maxi-

— — — — — — *MAIL COUPON* — — — — — —

THE OIL WEEKLY,
Houston, Texas, U. S. A.

Please see that I am supplied, without obligation, additional information on New Equipment Items Nos. _____ described in the July 11, 1932, issue of THE OIL WEEKLY.

Name .....

Company .....

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SUPREMACY

built by better performance

Nine sizes with either Flat Link or Cable Chain for Pipe 1/8" to 18"

For thirty-six years "Vulcans" have been the leading tongs of the Oil Fields. Consistent superiority; ability to take continued punishment year after year, and thrive on it — that's the answer!

Every Williams' "Vulcan" Chain is proof-tested and *certified*. Jaws and Handle are tough drop-forgings. Through-bolt is *extra heavy*, and its U. S. Standard Nut simplifies replacement.

Buy from your distributor.

J. H. WILLIAMS & CO.
"The Wrench People"
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GENUINE
WILLIAMS
SUPERIOR DROP-FORGED TOOLS
"VULCAN"
DROP-FORGED
CHAIN PIPE TONGS

mum strength—strongly welded both at the rim and at the web—and rigidly assembled with a hub of unique construction to give an accurately balanced and true running pulley of exceptional ruggedness and pleasing proportions, according to the manufacturer.

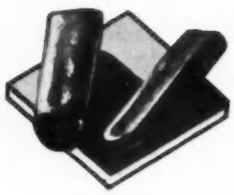
5. Kick-Off Unit

PRICE-TRAWICK, INCORPORATED

Price-Trawick, Incorporated, Stroud, Oklahoma, announces a new type kick-off unit designed to start the flow in deep wells with low pressure and within 10 to 20 minutes, and designed to give unrestricted passage to any tool which will pass through the tubing.

The unit is a tubing coupling, with a cold, shrunk-in valve seat, grooved in the walls of the coupling and having a concave face. A valve member extends through the valve seat, and has a convex valve head opposed to concave surfaces. It is mounted on a leaf spring which supports the valve in neutral position and permits it to wobble and seat itself under pressure.

Valves, seats, screws and springs are made of Monel metal to prevent corrosion.



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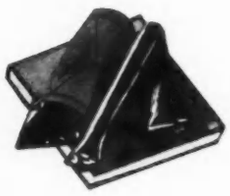

Tubing

6. Bit Facing

DIAMOND METAL COMPANY

Diamond Metal Company, 3411 Harrisburg Boulevard, Houston, has recently doubled the capacity of its plant through installation of a new type of furnace for making metallic diamond. The purpose of this furnace is to add to the quality of toughness and yet retain the hardness of the metal for facing drill bits.

Metal in Actual Size

The new method of making hard facing metal tough is according to this company an interesting addition to the manufacture of hard metal due to the fact that the hardness of the metal does not have to be sacrificed in order to obtain the necessary toughness.

7. Rubber Substitute

THE TRIOKOL CORPORATION

The Thiokol Corporation, Yardville, New Jersey, announces an olefin-polysulfide reaction product known as Thiokol, having characteristics very similar to those of rubber but which is not affected by solvents as is rubber, according to the corporation, which specifically points out the product's resistance to the deteriorating action of most gases and liquids, particularly gasoline and oils.

Squeaks *from the* BULL WHEEL

Jon Long, general manager, Petroleum Equipment Company and Oil Field Engineering Company, Fort Worth, Texas, recently rushed into San Antonio on a business trip and breezed into his favorite hotel for a room. For some reason, unbeknown to Jon, the house was "full-up" and his business was turned down by a new clerk who didn't recognize one of the boss' long time customers. That didn't phaze Jon though, and he got the owner on the phone, disappointed almost to being indignant.

"Why certainly," the boss told the clerk. "Fix Mr. Long up with the best and give him my private room until the necessary shifting around can be done."

It took but a few minutes for Jon to learn why hotel business was so good. The hotel was headquarters for the 1932 National Nurses' Convention, and Jon was the only gentleman guest in the house.

Jon Was the Only Man in the Hotel

"Anything the matter?"

"Yes. Last night I kissed a girl in the dark, pretended that I thought it was my wife, and found that it was."

"Can you find a job in your office for my son?"

"What can he do?"

"Nothing. Otherwise I should employ him myself."

"Hello, where have you been?"

"To the station to see my wife off for a month's holiday."

"But how black your hands are."

"Yes, I patted the engine."

Question: "What do you know about Queen Elizabeth and Sir Walter Raleigh?"

Answer: "Queen Elizabeth rode through Coventry naked to save the town. She met Sir Walter Raleigh who gave her his cloak and said, 'You look dam cold.' So Good Queen Bess said, 'Dieu et mon Droit'—which means, 'By —— you're right!' "

A bishop received the following note from the vicar of a village in his diocese:

"My Lord: I regret to inform you of the death of my wife. Can you possibly send me a substitute for the week-end?"

Lady of the house: "Why don't you go to work? Don't you know a rolling stone gathers no moss?"

Tramp: "Madam, not to evade your question at all, but merely to obtain information, may I ask of what practical utility is moss to a man in my condition?"

Son (calling at office): "Why Dad, where are you going in such a hurry?"

Dad: "I'm getting out while I have a chance. I just fired my secretary."

Son: "Why, I see she's still working."

Dad: "Yeah, that's it. She's just about ready to turn on the dictaphone, and I don't want to be here when she hears the news."

Mose cashed a check for $8 at the bank and stood counting over and over the bills he had received.

"Is it all there, Uncle?" asked the cashier.

"Yassir, yassir, but it just is," responded Mose.

Judge: "How did the accident happen?"

Autoist: "I dimmed my lights and was hugging the curve."

Judge: "So you were. That's how most accidents happen. Ten days."

Visitor in Printing Office—"What is your rule for punctuating?"

The "Apprentice" (lately promoted to the case)—"I set as long as I can hold my breath and then put in a comma; when I yawn I put in a semi-colon, and when I want a chew of tobacco I make a paragraph."

"We've had this car for years and never had a wreck."

"You mean we've had this wreck for years and never had a car."

"What did you do with your bonus?"

"Well, I spent a hundred shooting crap, fifty in a poker game, fifty on likker, twenty-five on taxi-fare, and seventy-five on a girl."

"But that only makes three hundred. What did you do with the other two hundred?"

"Oh, I don't know, I must have spent that foolishly."

BRONZE TO BRONZE
Is the Reason

DART UNIONS
Give Service
Try them

E. M. Dart Mfg. Company
PROVIDENCE, R. I.
The Fairbanks Company
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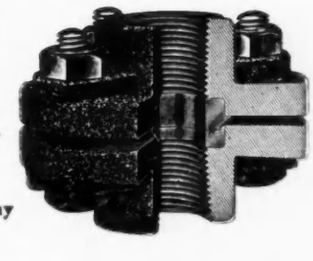

A FLYING START

The one best way to get a Flying Start toward the Profit Column in your operations today is to make the best possible use of Bridgeport Service. Bridgeport stores cover the active Mid-Continent Fields. In East Texas the two stores at Kilgore and Camps carry complete stocks of everything needed, either for sale or rental; also bargains in used tools, line pipe, surface pipe, casing, drill pipe, engines and boilers, at prices that will save you money.

Call any Bridgeport store COLLECT, and get our prices first. 24-Hour Service, week days and Sundays. Watch this column for special bargains in dependable used equipment.

BARGAIN on Almost New DRILL PIPE

166 joints — 5000 ft. — 4½" — 16.60 lb. Seamless internal upset Drill Pipe with A. P. I. tool joints. This pipe is at least 80% new condition. Priced at a Real Bargain, f.o.b. our Oklahoma City store, of only.....$1.00 per foot

BRIDGEPORT DRILL COLLARS

Made of special forged steel, to Bridgeport's own specifications. Perfectly designed. Bridgeport's unrelenting standards of superiority. All sizes—all lengths. See them at your nearest Bridgeport store before you buy.

BRIDGEPORT ROTARY HYCHROME SUBS

Made by the famous Hychrome Process —manufactured exclusively by Bridgeport. Have either Box and Pin Joints, or Double Box Joints. You will surely save money and avoid trouble by using Hychrome Subs.

BRIDGEPORT'S SUPERIOR ROTARY TOOLS

Bridgeport's specialized knowledge and manufacturing experience, together with our unsurpassed equipment, are important reasons for your choosing these Bridgeport manufactured products:

BRIDGEPORT Rotary Double 3-point Reamers.
BRIDGEPORT Hychrome Drill Collars—all lengths.
BRIDGEPORT Hychrome Taper Taps.
BRIDGEPORT Hychrome Drill Pipe Floats, with stream line valves.
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BRIDGEPORT Rotary Fishing tools (For sale or Rent).

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Wichita, Kansas

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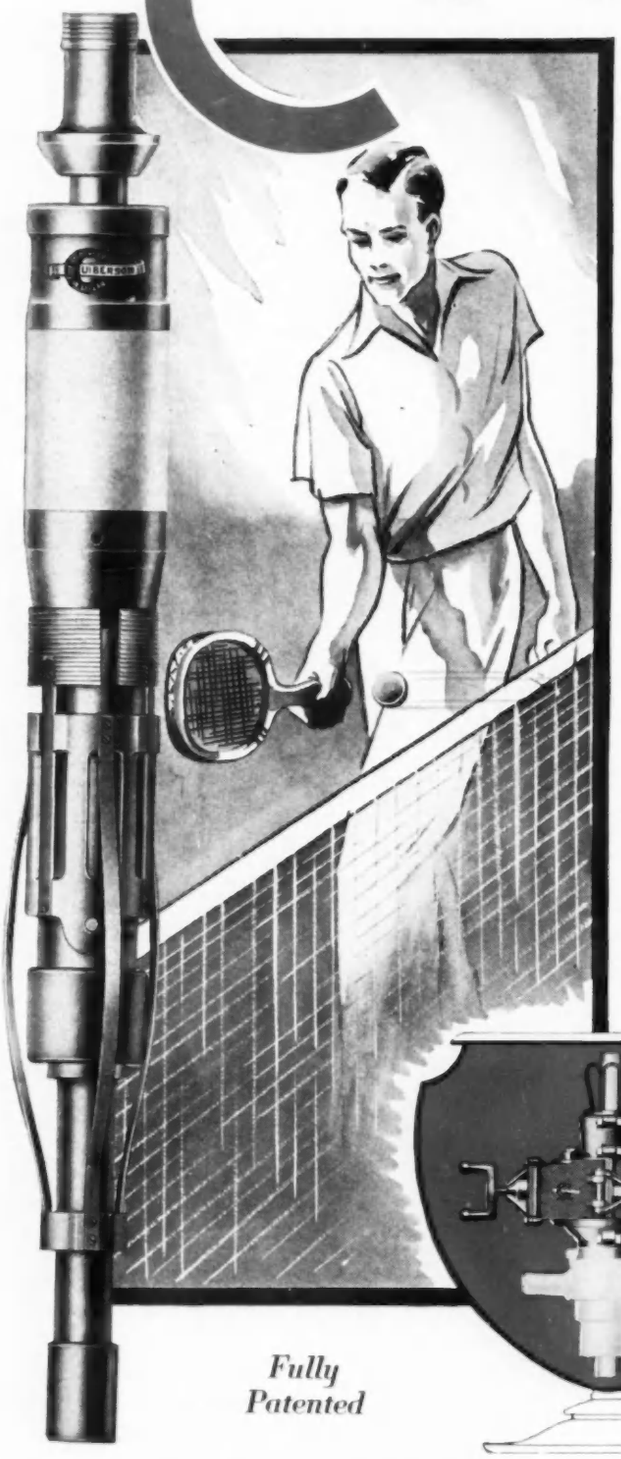
CONTROL

MEANS AS MUCH TO A FLOWING WELL AS IT DOES TO A TENNIS STAR



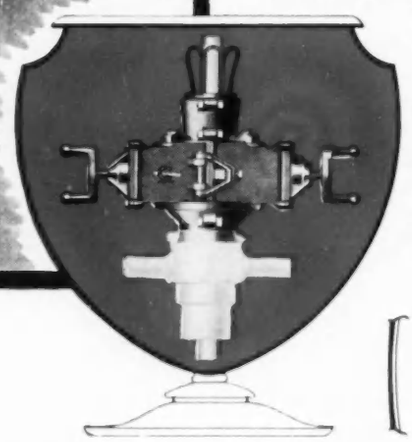
OBTAIN IT WITH THE GUIBERSON Control Head Packer

Perhaps in no other game does energy flow so rapidly as in tennis. Lack of control means irreparable losses in stamina and results. A well flowing haphazardly through the casing is gushing out its life and energy in like manner.

The Guiberson Control Head Packer confines the flow to the tubing, regulating the amount of gas necessary to lift the oil to the surface, thereby conserving this valuable energy and postponing the day when the well has to go on the pump. The gravity of the oil is also preserved, by maintaining surface pressure in the well. Don't enter your well in the game of profit and loss without insuring the precious control that makes a winner.

TO PACK FLOWING WELLS

The Guiberson Tubing Oil Saver, set on top of the casing, confines the flow while the packer is being run. Recommended for safety and economy. Rubbers permit passage of tubing collars and Saver can be opened wide to admit Packer or Tubing Catcher.



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